CONTENTS OF SUPPLEMENT.

PERSONAL 177
Obituary 177
ENGINEERING SOCIETIES 177
Coming Technical Meetings 177
NEW PUBLICATIONS 178
Trade Publications 178
CONSTRUCTION NEWS:
Condensed List of Contracts Pending 178
Railways 179
Street and Electric Railways 179
Electric Light and Power 180
Bridges 180
Buildings 180
Water-Works 181
Irrigation 182
Sewerage 182
Garbage Disposal and Street Cleaning 182
Streets and Roads 182
Manufacturing Plants 183
Miscellaneous Contracts 183
Contract Prices 183
INDUSTRIAL NOTES 184

PERSONAL.

Mr. George C. Dunham has been appointed City Engineer of New Britain, Conn.

Mr. Wencel L. Cukierski has been appointed Superintendent of Parks, of Grand Rapids, Mich.

Mr. John L. Cooper, formerly County Surveyor of Noble county, Indiana, has been elected City Engineer of Ligonier, Ind.

Mr. William H. Davis, of Harrison, has been elected President of the Consumers' Electric Light, Heat & Power Co., Elizabeth, N. J.

Mr. John C. Graves, for about 15 years a Park Commissioner of Buffalo, N. Y., has been appointed Superintendent of Parks of that city.

Mr. T. A. Switz, Purchasing Agent of the Minneapolis, St. Paul & Sault Ste. Marie Ry., with headquarters in Minneapolis, Minn., has resigned.

Mr. W. B. Sears, Chief Engineer of the Flint & Pere Marquette R. R., with headquarters at Saginaw, Mich., has been appointed Consulting Engineer.

Mr. Homer Reed Stanford, Assoc. M. Am. Soc. C. E., of Memphis, Tenn., has been recommended by President McKinley for appointment as a Civil Engineer in the United States Navy.

Mr. John Graham has been appointed Chief Engineer, Mr. Edward Bernier, Assistant Engineer, and Mr. H. C. Thompson, formerly City Engineer, Street Commissioner of Sault Ste. Marie, Mich.

Mr. Samuel M. Gray, M. Am. Soc. C. E., consulting engineer for municipal, hydraulic and sanitary work, has removed his office from 174 Weybosset St. to Room 929, Banigan Bldg., 10 Weybosset St., Providence, R. I.

Mr. E. Sherman Gould, M. Am. Soc. C. E., of Yonkers, N. Y., is at Tampa, Fla., on the staff of Brig.-Gen. Wm. Ludlow, M. Am. Soc. C. E., Corps of Engineers, U. S. Army. He expects to go to Cuba with the Army of invasion.

Mr. H. Uyeki, Imperial Government Engineer, of Japan, is in the United States on a tour of investigation of the jetties and engineering works of the country. He is at present in the West, but later will visit Chicago and New York on his way to Europe.

Mr. Theodore Butterfield, General Passenger Agent of the Rome, Watertown & Ogdensburg R. R., with headquarters at Syracuse, N. Y., has been appointed General Manager of the Ogdensburgh & Lake Champlain R. R. Mr. E. M. Harter has been appointed Auditor of the latter road.

Mr. Nettleton Neff, Assistant Engineer on the Pennsylvania Lines West of Pittsburg, with headquarters at Fort Wayne, Ind., has volunteered his services to the United States and has been ordered to report at San Antonio, Tex., for duty with Lieut. Col. Theodore Roosevelt's regiment of rough riders.

Mr. Daniel L. Mott, Assoc. M. Am. Soc. C. E., who was Assistant City Engineer of Utica, N. Y., until January last, has opened an office as a civil engineer at 68 Arcade Bldg., in that city. At the last meeting of the Common Council of Utica he was awarded a contract for cleaning the streets by hand labor.

Mr. William J. Wilgus, M. Am. Soc. C. E., Chief Assistant Engineer of the New York Central & Hudson River R. R., with headquarters in New York city, has been appointed Engineer of Maintenance of Way, with general supervision of track, bridges and buildings, and his former office has been abolished.

Prof. Samuel Fortier has resigned his positions of Professor of Civil and Hydraulic Engineering in the Agricultural College of Utah and Irrigation Engineer of the Experiment Station, to accept that of Superintendent and Chief Engineer of the Bear River Irrigation & Ogden Water-Works Co., Ogden, Utah.

Mr. H. F. Dunham, M. Am. Soc. C. E., has removed his office from 150 Broadway to 2 Wall St., New York city. For some years he has been Engineer and General Manager of the Menominee Water Co., Menominee, Mich., and now holds similar positions with the Massillon Water Supply Co., Massillon, O., and the Warren Water Co., Warren, O. He is also Chief Engineer of the Aurora & Geneva Electric Ry. of Illinois.

Prof. Edwin Brant Frost, Professor of Astronomy and Director of the Shattuck Observatory, Dartmouth College, Hanover, N. H., has been appointed Professor of Astronomy in the University of Chicago, and will have charge of the Yerkes Observatory.

Mr. W. A. Williams, Acting General Superintendent of the Omaha, Kansas City & Eastern R. R., and of the Omaha & St. Louis R. R., with headquarters at Quincy, Ill., has been appointed Superintendent of the Quincy, Omaha & Kansas City Ry. and of the Omaha and St. Louis Divisions of the Kansas City, Pittsburgh & Gulf R. R.

Messrs. James Atkins, M. Am. Soc. M. E., and Mr. Joseph R. Wendover, composing the Atkins & Wendover Engineering Co., 39 Cortlandt St., New York city, have dissolved partnership by mutual consent. Mr. Atkins is authorized to settle the accounts of the firm and will continue the business with offices in the Washington Life Bldg., 141 Broadway.

Mr. J. T. Bootes, Assistant Engineer on the Pennsylvania Lines West of Pittsburg, with headquarters at Wellsville, O., who recently tendered his services to the Navy Department, has been given the rank of Lieutenant, junior grade, and ordered to the navy yard at Boston, Mass. He was a cadet at the United States Naval Academy, Annapolis, Md., for two years.

Mr. W. W. Rich, M. Am. Soc. C. E., who was until recently Chief Engineer of the Minneapolis, St. Paul & Sault Ste. Marie Ry., has accepted the position of Consulting Engineer for His Excellency Sheng Tajen, Director-General of the Imperial Chinese Railway Administration. His address is Shanghai, in care of the United States Consul-General. Mr. Rich was in China last year, by invitation of the Chinese government, to examine the route for the proposed railway from Hangkow to Paoting-fu, 650 miles, as noted in our issue of Aug. 12, 1897. After coming back to this country he returned to China a few months ago, and has now accepted the appointment noted above.

Mr. Ira Grant Hedrick, Assoc. M. Am. Soc. C. E., Principal Assistant Engineer in charge of the designing office of Mr. J. A. L. Waddell, M. Am. Soc. C. E., Kansas City, Mo., has just received from McGill University, Montreal, Que., the ad eundem gradum degree of B. A. Sc., which gives him the privilege of taking the Ma. E. degree by examination at any time. The degree was conferred in recognition of his services in giving to the engineering students of McGill a course of lectures in the actual designing of bridges, supplementary to the lectures of Mr. Waddell on theory and practice, which were afterwards published in a part of "De Pontibus." Mr. Hedrick took about two weeks to give the course, and covered the designing in detail of all kinds of bridges, from rolled I-beam spans up to very long spans, including both fixed and movable bridges.

OBITUARY.

Mr. Robert McKay Morrison, marine engineer, of Brooklyn, N. Y., died, May 23, aged 54.

Mr. Edward Lister, President of the Lister Agricultural Chemical Works, Newark, N. J., died May 18, aged 68.

Mr. James J. Traver, at one time Master Car Builder of the Adirondack R. R., died in Saratoga, N. Y., May 20, aged 82.

Hon. Hiram H. Smith, first President of the Detroit, Lansing & Northern R. R., died in Jackson, Mich., May 15, aged 89.

Mr. Benedetto Brin, Inspector General of Naval Engineering and Minister of Marine, of the Kingdom of Italy, died in Rome, Italy, May 24, aged 65.

Mrs. Elise S. Fteley, wife of Mr. Alphonse Fteley, President of the American Society of Civil Engineers and Chief Engineer of the Croton Aqueduct Commission, died May 19, at her home in New York city.

Mr. Edwin A. Scribner, President of the Loando Hard Rubber Co., Boonton, N. J., died May 22, aged 42. He was a graduate of Bowdoin College, Brunswick, Me., and was at one time Professor of Chemistry in a Western college.

Lieut.-Col. William R. King, Corps of Engineers, U. S. Army, in charge of the improvements of the Mississippi River from the mouth of the Missouri River to St. Paul, died in Rock Island, Ill., May 18, aged 59. He graduated from the United States Military Academy, West Point, N. Y., in July, 1863, and was appointed First Lieutenant in the Engineer Corps. He saw active service in North Carolina, and later became Chief Engineer of the 18th Army Corps in the operations before Richmond. He was brevetted Major, April 9, 1865, and was made Captain Dec. 31, 1865. In 1869 he was a member of the board appointed to report upon the proposed New York and Brooklyn bridge, and in 1870 was appointed to a similar position in connection with the proposed Philadelphia and Camden bridge. For 10 years he was in charge of the improvements of the Tennessee and Cumberland Rivers, and from 1886 to 1895 he was in charge of the military post at Willets Point, N. Y. He was made a Major in 1879 and a Lieutenant-Colonel in 1888.

Mr. Harrison Hayter, a Past-President of the Institution of Civil Engineers, died in Kensington, London, England, May 5. He was born near Falmouth, April 10, 1825, and graduated from the science department of King's College, London, after having previously received a classical and mathematical education. He was engaged on the Stockton & Darlington Ry., which afterwards became a part of the North-Eastern system, under the pupilage of Mr. John Harris, M. Inst. C. E. For four years he was on the Great Northern Ry. and afterwards was engaged on the Dover Harbor Works and on bridge work at Inverness. In 1856 he became Chief Assistant at Westminster to the late Sir John Hawkshaw, with whom he was afterwards associated for many years. In 1870 he became a partner in the business, and after Sir John's retirement in 1888 carried it on in conjunction with Mr. J. C. Hawkshaw. During his life Mr. Hayter had visited every continent on the globe in the line of his professional duties. Among the various works with which he had been connected may be mentioned the following: The Lancashire & Yorkshire Ry., the East London Ry., Holyhead harbor and breakwater; Victoria Bridge; Charing Cross & Cannon St. Ry., involving the construction of two bridges across the Thames; the Severn Tunnel; the West of India Portuguese Guaranteed Ry.; the Nerbudda Bridge; Bombay; the Central Indian Ry.; the dock-system at Buenos Ayres; Midland Ry. of Western Australia, and the Amsterdam Ship Canal. He was elected a member of the Institution of Civil Engineers in May, 1862; became a member of the Council in December, 1878; Vice-President in May, 1886, and President in 1892 and 1893. He was also Lieutenant-Colonel of the Engineer and Railway Volunteer Staff Corps and a Fellow of the Geological Society and of King's College, London.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

INDIANAPOLIS ENGINEERING CLUB.
May 28. Secy., Edson F. Folsom, Indianapolis, Ind.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.
May 30, June 4. Spring meeting, Niagara Falls, N. Y. Secy., Prof. F. R. Hutton, 12 W. 31st St., New York city.

ENGINEERS' CLUB OF ST. LOUIS.
June 1. Secy., Richard McCulloch, St. Louis, Mo.

WESTERN SOCIETY OF ENGINEERS.
June 1. "Obstructive Bridges and Docks of the Chicago River," G. A. M. Liljencrantz, and "Measuring Apparatus of Kings County Survey," Samuel McElroy. Secy., N. L. Litten, Monadnock Block, Chicago, Ill.

FRANKLIN INSTITUTE.
June 1. Secy. Wm. H. Wahl, 15 So. 7th St., Philadelphia, Pa.

AMERICAN SOCIETY OF CIVIL ENGINEERS.
June 2. Secy., C. W. Hunt, 220 W. 57th St., New York city.

BROOKLYN ENGINEERS' CLUB.
June 2. Secy., A. J. Provost, Jr., 191 Montague St., Brooklyn, N. Y.

TECHNICAL SOCIETY OF THE PACIFIC COAST.
June 3. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.

NATIONAL ELECTRIC LIGHT ASSOCIATION.
June 7-9. Annual meeting, Chicago, Ill. Secy., Geo. F. Porter, 136 Liberty St., New York city.

AMERICAN FOUNDRYMEN'S ASSOCIATION.
June 7-10. Annual meeting, Cincinnati, O. Secy., John A. Penton, Buhl Block, Detroit, Mich.

OHIO STREET RAILWAY ASSOCIATION.
June 8. Annual meeting, Columbus, O. Secy., Frank J. J. Sloat, Akron, O.

ENGINEERING ASSOCIATION OF THE SOUTH.
June 9. Nashville, Tenn. Secy., C. B. Wilson, Nashville, Tenn.

NORTHWESTERN ELECTRICAL ASSOCIATION.
June 10. Secy., Theo. R. Mercein, 511 Montgomery Bldg., Milwaukee, Wis.

NORTHWESTERN TRACK AND BRIDGE ASSOCIATION.
June 10. Secy., D. W. Meeker, St. Paul, Minn.

MONTANA SOCIETY OF ENGINEERS.
June 11. Secy., Albert S. Hovey, Helena, Mont.

ENGINEERS' CLUB OF KANSAS CITY.
June 13. Secy., F. W. Tuttle, Baird Bldg., Kansas City, Mo.

LOUISIANA ENGINEERING SOCIETY.
June 13. "Landscape Engineering as Applied to Park Improvements," Capt. Geo. H. Grandjean. Secy., J. F. Coleman, 712 Union St., New Orleans, La.

DENVER SOCIETY OF CIVIL ENGINEERS.
June 14. Secy., W. B. Lawson, 36 Jacobson Bldg., Denver, Colo.

CIVIL ENGINEERS' CLUB OF CLEVELAND.
June 14. Secy., Wm. H. Searles, Case Library Bldg., Cleveland, O.

AMERICAN WATER-WORKS ASSOCIATION.
June 14-16. Annual meeting, Buffalo, N. Y. Secy., Peter Milne, 95 William St., New York city.

BOSTON SOCIETY OF CIVIL ENGINEERS.
June 15. Secy., S. E. Tinkham, City Hall, Boston, Mass.

MASTER CAR BUILDERS' ASSOCIATION.
June 15-17. Annual meeting, Saratoga, N. Y. Secy., Jno. W. Cloud, 974 Rookery, Chicago, Ill.

ENGINEERS' CLUB OF CINCINNATI.
June 16. Secy., J. F. Wilson, P.O. Box 333, Cincinnati, O.

ENGINEERS' CLUB OF COLUMBUS.
June 18. Secy., M. S. Hopkins, 14½ N. High St., Columbus, O.

TECHNICAL CLUB OF OMAHA.
June 20. Secy., J. Harry Lawrie, Omaha, Neb.

ENGINEERS' CLUB OF MINNEAPOLIS.
June 20. Secy., H. E. Smith, 1620 S. E. 4th St., Minneapolis, Minn.

ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA.
June 21. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburg, Pa.

AMERICAN RAILWAY MASTER MECHANICS' ASSOC'N.
June 20-22. Annual meeting, Saratoga, N.Y. Secy., John W. Cloud, 974 Rookery, Chicago, Ill.

WESTERN FOUNDRYMEN'S ASSOCIATION.
June 22. Secy., A. Sorge, Jr., 1020 Monadnock Block, Chicago, Ill.

ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.
June 22. Secy., Frank H. Olmstead, Los Angeles, Cal.

CANADIAN ELECTRICAL ASSOCIATION.
June 28-30. Annual convention, Montreal. Secy., C. H. Mortimer, Confederation Bldg., Toronto, Can.

AMERICAN INSTITUTE ELECTRICAL ENGINEERS.
June 29. Secy., R. W. Pope, 26 Cortlandt St., New York city.

INTERNATIONAL MINING CONGRESS.
July 6-9. At Salt Lake City. Secy., W. D. Johnson, Salt Lake City, Utah.

AMERICAN SOCIETY OF R. R. SUPERINTENDENTS.
July 13-14. Annual meeting, Alexandria Bay, N.Y. Secy., C. A. Hammond, Asbury Park, N. J.

AMERICAN INSTITUTE OF MINING ENGINEERS.—Secretary R. W. Raymond announces that owing to the war with Spain, it will be impracticable to hold the autumn meeting outside of the United States, and the contemplated Mexican meeting will, therefore, be abandoned. Ample notice will be given of the time and place of the autumn meeting.

INTERNATIONAL MINING CONGRESS.—This Congress is a permanent organization, the outcome of the International Gold Mining Convention, which was held in Denver, Colo., in July, 1897. The first session of the Congress will be held in Salt Lake City, Utah, July 6 to 9, 1898, and papers are being invited, and an exhibit of mineral products and mining and milling machinery is being prepared.

W. D. Johnson, Secy.

ILLINOIS STREET RAILWAY ASSOCIATION.—The first annual meeting is to be held in Chicago, on June 7, when the following papers will be presented: "The Right of Street Railways under the Constitution," C. L. Bonney; "The Operation of Street Railways in Small Cities," E. X. Leuzeure; "Systems of Collecting Fares and Checking Employees," W. L. Ferguson; "Relations of Street Railways and Municipal Corporations," D. B. Sherwood.

C. K. Minary, Secy.

THE ENGINEERS' CLUB OF PHILADELPHIA.—At the regular meeting of the Club, held on May 7, the paper of the evening, entitled "A Case of Jurisprudence in Land Surveying," abstracted elsewhere in this issue, was read by Mr. Ambrose E. Lehman. Mr. John Birkinbine exhibited a series of lantern views made from flashlight photographs, illustrating different systems of timbering in use in mines in various parts of this country.

On May 14 the last conversational meeting prior to the summer recess was held. Lantern views of the harbors and defences of Manila and Havana and other objects of interest in connection with the war with Spain were shown.

NEW YORK ELECTRICAL SOCIETY.—A special meeting of this Society was held in the concert room of Madison Square Garden, New York city, on May 19. Prof. I. Fujioka, a prominent Japanese electrical engineer, read a paper entitled "Electrical Developments in Tokyo City and the Kingdom of Japan." A large number of illustrations representing scenes during the Japanese-Chinese war were shown after the reading of the paper.

The annual meeting for the election of officers will be held in the concert room of Madison Square Garden on May 26, after which Prof. Sidney H. Short will read a paper entitled "The Outlook for Heavy Electric Traction."

NORTH-WEST RAILWAY CLUB.—At the regular meeting of this Club, held at Minneapolis, Minn., on May 10, the following officers were elected for the ensuing year: President, Tracy Lyon, M. M., Chicago-Great Western Ry., St. Paul; First Vice-President, George Dickson, Great Northern Ry., St. Paul; Second Vice-President, H. Goehrs, M. C. B., C., M. & St. P. Ry., Minneapolis; Secretary, T. A. Foque, Asst. Mech Supt., "Soo" Line, Minneapolis; Treasurer, Alfred Child, N. P. Ry., St. Paul; Assistant Secretary, F. B. Farmer, Westinghouse Air-Brake Co., Endicott Arcade, St. Paul. After the election the following subjects were discussed: "What is the Best Method of Tapping-out Boiler Sheets for Stay Bolts, and the Best Method of Putting in the Stay Bolts?" and "What Should be the Proportion Between the Heating Surface and Grate Area in the Locomotive Boiler to Obtain a Free-Steaming Engine Using the Average Western Bituminous Coal?" This was the last meeting of the season, and the next meeting will be held at Ryan's Hotel, St. Paul, on Sept. 13. T. A. Foque, Secy.

ENGINEERS' CLUB OF ST. LOUIS.—The 473d regular meeeting of this Society was held on May 18. The president announced Messrs. Chas. Bouton, Geo. W. Olshausen and A. H. Zeller as delegates to attend the convention of the Civil Engineers of France, to be held at Paris in June. Mr. M. L. Holman read a paper on "The Filtration of Water," which described the present practice in Germany for filtering water for the use of towns and cities. The open sand filtration plants of Hamburg and the method of operating and cleaning them were described. The German government requires that water for city use shall contain less than 100 bacteria per cubic centimeter, and the water which passes through the filter is tested periodically to see that this requirement is carried out. The covered sand filters in use at Berlin, and the artificial stone filters in use at Worms were also described.

Mr. E. J. Spencer then gave notice that the bill authorizing the formation of a brigade of engineers for the U. S. Army had become a law, further stating that as the Secretary of War had arbitrarily cut this down to a single regiment to be raised on the eastern seaboard, he asked the Engineers' Club of St. Louis to telegraph a protest. A committee was appointed to telegraph the action of the Society to the Secretary of War.

Richard McCulloch, Secy.

WESTERN RAILWAY CLUB.—At the meeting, on May 17, a paper by Mr. John C. McMynn, on "Specifications," was presented for discussion. Mr. Rhodes (C., B. & Q. R. R.) stated that on his road everything is bought on specifications, and not merely by name. Mr. Waitt (L. S. & M. S. Ry.) referred to the importance of specifications in themselves, to the importance of having them carefully and properly drawn up, and to the importance of having the specifications lived up to. It was decided that the proposition to have a committee or committees to report on specifications should be made a subject for discussion during the next season, commencing in September.

This paper was followed by a discussion on the following subject: "With the Cars of Very Large Capacity Now Being Built, it is Advisable to Have the Weight Transmitted from Body Bolster to Truck Bolster Equally Distributed Between the Center Plate and Side Bearings, Instead of Carrying it all on the Center Plate?" Mr. A. M. Waitt (L. S. & M. S. Ry.) was in favor of distributing the load, as under present construction it is practically impossible to keep cars from settling down on the side bearings. With the ordinary bearings this causes so much friction that the trucks cannot swivel freely, and sharp-flanged wheels and worn rails result, but he suggested the use of roller bearings. Mr. Waitt and Mr. Delano (C., B. & Q. R. R.) cited experience which shows that many of the cars in regular service have the trucks held by the side bearings, so that there is considerable flange friction.

The election of officers resulted as follows: President, C. A. Schroyer, Chicago & Northwestern Ry.; First Vice-President, F. W. Brazier, Illinois Central Ry.; Second Vice-President, Prof. W. F. M. Goss, Purdue University; Treasurer, John W. Cloud; directors (in addition to the above), H. G. Hetzler, Chicago, Burlington & Quincy R. R., and P. H. Peck, Chicago & Western Indiana R. R. Trustees of the library: F. W. Sargent, chairman; Wm. Forsyth and A. M. Waitt.

NEW PUBLICATIONS.

MUNICIPAL ART.—Being the March Number of "Municipal Affairs." New York: Reform Club, 52 William St., New York city. Paper; 6 x 9 ins.; pp. 133. 25 cts.

Many of our readers may remember that about a year ago we noticed "A Bibliography of Municipal Administration and City Conditions," by Robt. C. Brooks, which formed the first number of a quarterly journal named "Municipal Affairs." The last issue of the same journal is devoted almost exclusively to municipal art. We have commented editorially on the subject elsewhere in this issue, so we give here only the titles and authors of the several articles: "Public Art in American Cities" and "Popular Art in Belgium," authors not stated; "The City's Plan," by Julius F Harder; "Civic Architecture from its Constructive Side," by Chas. Rollinson Lamb; "Municipal Sculpture," by Karl Bitter; "Mural Painting," by Edwin H. Blashfield; "Civic Treatment of Color," by Fred'k S. Lamb; "Matters that Suggest Themselves," by John De Witt Warner.

CONNECTICUT STATE BOARD OF HEALTH.—Report for 1897 and Registration Report for 1896. C. A. Lindsley, M. D., Secretary, New Haven, Conn. Cloth; pp. xxxix. + 357 + 195; tables.

This volume is principally devoted to the detailed reports of the county and town health officers and to vital statistics. There is a special "Report on Investigation of Rivers, Pollution and Water Supply," by Prof. Herbert E. Smith, of Yale University, in which a large number of analyses are given. The water analyses include samples taken for studies of river pollution and from public water supplies. There are also mechanical analyses of the sand used for sewage filtration at Meriden, Bristol and Danbury, and of sewage from two of these plants. The total deaths in Connecticut for the year ending Aug. 31, 1897, was 1,040 less than in the preceding year and 735 less than the average for the five preceding years. This diminution was almost wholly in the zymotic or preventable diseases, which seems to show that the character of the health board work in the state is improving notably.

REPORT OF THE BUREAU OF MINES, ONTARIO.—Vol VII., Part 1st, 1898. Printed by order of the Legislative Assembly of Ontario. Toronto. Paper; 9¾ x 6⅝ ins.; pp. 106; maps and photogravures.

The contents of this report include: The Statistics of Mining Lands and Minerals; Mines of Northwestern Ontario; Mines of Eastern Ontario and Michipicoton Mining Division, with an introduction treating largely of mining laws. A list of all mining companies is given, with the date of charter and amount of capital. The copper and nickel mines of the Sudbury district are the most interesting in the report on minerals, as worked by the Canadian Copper Co. and the Trill Mining & Manufacturing Co. The returns for the Sudbury mines are given for the six years, 1892-97, and that for 1897 is as follows: Ore raised, 93,155 tons; ore smelted, 96,093 tons; percentage of metallic contents, nickel, 2.08; copper, 2.86. While the quantity smelted last year was larger than ever before, the percentage of copper was higher and that of nickel less than in 1896. No cobalt has been produced since the closing of the Dominion Mineral Co.'s works in 1894. In the six years named 526,120 tons of mineral were raised and 469,928 tons were smelted, with 64,061 tons of matte produced, or 13.84% of the ore as delivered at the furnace. The metallic contents of the matte, for the six years, is computed at 25,137,500 lbs. of nickel, 26,197,000 lbs. copper and 61,500 lbs. of cobalt. The value of these minerals at the works was $2,779,840 for nickel, $1,034,725 for copper and $14,613 for cobalt, or a total value in six years of $3,829,178. The labor cost was $1,614,393, which apportioned to the values would make the cost per pound as follows: 4⅔ cts. for nickel, 1⅝ cts. for copper and 10½ cts. for cobalt. This is the labor cost of producing them in the form of matte. The average selling price of both nickel and copper has steadily fallen between 1892 and 1897. For the six years the average selling price per pound in the form of matte was: 11.058 cts. for nickel, 3.950 cts. for copper and 23.760 cts. for cobalt. All of the matte here produced is sent out of the country to be refined, and the most of it goes to the Orford Copper Co.'s works, at Constable Hook, N. J. The cost of refining cannot be accurately ascertained, but it is about 9½ cts. per pound for shot or plate nickel, 6 cts. for nickel oxide and 3½ cts. for fine copper. Computed at the present selling prices in the American market, the value of nickel and copper produced from the ores of the Sudbury mines, in the past six years, is, for nickel, $8,798,125, and for copper, $2,947,162; or, $10,745,287 for both.

TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 8 1-2 x 6 ins.; 6 x 9 ins., and 9 x 12 ins.)

INJECTORS.—American Injector Co., Detroit, Mich. Paper; 3⅝ × 6¼ ins.; pp. 64.

The specialties show in this pamphlet the U. S. automatic and the World double-tube injectors, the latter being used where the feed water is of high temperature or where there is a great range of steam pressure with a long lift. Ejectors, jet pumps, etc., are also shown. Several pages are devoted to "useful information" and to questions and answers for the instruction of enginemen intending to apply for licenses.

PILE-DRIVING MACHINERY.—Vulcan Iron Works, Chicago, Ill. Paper; 5 × 6¾ ins.; pp. 48; illustrated.

This is a descriptive catalogue and price list of pile drivers, steam pile hammers, pile driver hoisting engines and appurtenances, and fixtures of all kinds used in pile-driving work. Special descriptions are given of some of the more important and novel devices, among which may be mentioned Casgrain's patent cap for pile driving, a special pile saw for cutting off piles under water, the Warrington steam pile hammer, railway car pile drivers and adjustable batter leaders for pile drivers.

HOISTING MACHINERY.—The John F. Byers Machine Co., Ravenna, O. Pamph.; 8 × 10 ins.; pp. 84; illustrated.

This is an illustrated catalogue and price list of geared locomotives, hoisting engines, traveling derrick cars, hand and power fixed derricks, boilers, elevators, blocks and sheaves, and hoisting machinery supplies of all kinds manufactured and sold by the firm named. Among the machines deserving of particular notice are a double cylinder bridge erecting engine, a special back haul portable excavator, a boom swinger capable of being connected with any form of hoisting engine, and several patterns of self-propelling traveling derricks for quarry and yard uses.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work.	Place.	See Eng. News.
May 26.	Water-works,	Plainfield, Ill.	May 19
May 26.	Abutments,	Boston, Mass.	May 19
May 26.	Electric lighting,	New Brunswick, N. J.	May 19
May 26.	School building,	Mount Oliver, Pa.	May 19
May 26.	Pipe sewer (1,100 ft.),	Danbury, Conn.	May 19
May 26.	Macadamizing,	Plainfield, N. J.	May 19
May 26.	Road work,	Hamden, Conn.	May 19
May 26.	Hospital building,	Marshalltown, Ia.	May 5
May 26.	Improving roads (3),	Pittsburg, Pa.	May 5
May 26.	Paving (3 streets),	East Liverpool, O.	May 5
May 26.	Dredging,	Sabine Pass, Tex.	May 5
May 26.	Sewers,	Cleveland, O.	May 5
May 26.	Brick paving,	Dobb's Ferry, N. Y.	May 26
May 27.	Electric light plant,	Pittsburg, Pa.	May 26
May 27.	Macadamizing,	Pittsburg, Pa.	May 26
May 27.	Building,	Fall River, Mass.	May 26
May 27.	Pier, stores, etc.,	Boston, Mass.	May 26
May 27.	Light and water bonds,	Caldwell, O.	May 5
May 27.	Electric plant,	Caldwell, O.	May 5
May 27.	Steel-hulled tenders (5),	St. Louis, Mo.	Apr. 28
	Advertised, Eng. News, Apr. 28 to May 19.		
May 27.	Skylights,	Pittsburg, Pa.	May 19
May 27.	Sewers,	Chicago, Ill.	May 19
May 27.	Dredging (100,000 cu.yds.),	New York	May 19
May 27.	School building,	Carpentersville, Ill.	May 19
May 27.	Brick and pipe sewers,	Cedar Rapids, Ia.	May 19
May 27.	Sewer and water-works,	Fort Mojave, Ariz.	May 19
May 27.	Paving and curbing,	Omaha, Neb.	May 19
May 27.	Brick paving, curb, etc.,	Fulton, N. Y.	May 19
May 27.	Hospital building,	West Chester, Pa.	May 19
May 28.	Pipe sewers,	Coraopolis, Pa.	May 19
May 28.	Sewers,	Washington, D. C.	May 19
	Advertised, Engineering News, May 19.		
May 28.	Paving and curbing,	North Adams, Mass.	May 19
	Advertised, Engineering News, May 19.		
May 28.	Brick building,	Paragon, Ind.	May 19
May 28.	Street work,	Athena, O.	May 26
May 28.	Steel fireboat,	Chicago, Ill.	May 26
May 28.	School bonds ($100,000),	Buffalo, N. Y.	May 26
May 28.	Seminary building,	Sherbrooke, Que.	May 26
May 28.	School building,	Cloquet, Minn.	May 26
May 30.	Factory building, etc.,	Des Moines, Ia.	Apr. 14
May 30.	Stone paving,	Toledo, O.	May 5
May 30.	Brick building,	Frazee, Minn.	May 19
May 30.	Sewers,	Toledo, O.	May 19
May 30.	Improving water-works,	Media, Pa.	May 19
	Advertised, Engineering News, May 19.		
May 30.	Electric light plant,	Watervliet, N. Y.	May 26
May 30.	Paving, etc. (6 streets),	Kansas City, Mo.	May 26
May 31.	Brick paving, etc.,	Flint, Mich.	May 26
May 31.	Gun forgings,	Washington, D. C.	May 26
May 31.	Brick paving,	Nanticoke, Pa.	May 26
May 31.	Paving,	Baltimore, Md.	May 26
May 31.	Asphalt paving,	Troy, N. Y.	May 26
May 31.	Building alterations,	New York	May 26
May 31.	City hall building,	St. Thomas, Ont.	May 26
May 31.	Pipe sewers,	Montclair, N. J.	May 26
May 31.	Sidewalks, grading, etc.,	East Liverpool, O.	May 19
May 31.	Edge and flag-stones,	Haverhill, Mass.	May 19
	Advertised, Engineering News, May 19.		
May 31.	Iron bridge,	Dresden, Ont.	May 19
May 31.	Sewers,	Binghamton, N. Y.	May 19
May 31.	Cement sidewalks,	Berlin, Ont.	May 19
May 31.	Electric light plant,	Malvern, Ark.	Apr. 7
May 31.	Bridge bonds, ($60,000),	Hamilton, O.	May 12
May 31.	Hydraulic lift lock,	Peterborough, Ont.	May 12
June 1.	School building,	Keokuk, Ia.	May 12
June 1.	Municipal building,	Stratford, Ont.	May 12
June 1.	Cofferdam, masonry, etc.,	Chicago, Ill.	Apr. 7
June 1.	Electric railway,	Zurich, Switzerland	Mar. 10
June 1.	By-pass, etc.,	Chicago, Ill.	Apr. 21
	Advertised, Eng. News, Apr. 21 and 28.		
June 1.	Court house,	Monticello, Ky.	Apr. 21

June 1. Arc lights (50), Columbia, Tenn. .....Apr. 28
June 1. Stone flag and curb, Battle Creek, Mich....May 5
June 1. Brick paving, etc., Dorranceton, Pa.....May 19
June 1. Road work, St. Clairsville, O. .....May 19
June 1. Engine house, Columbus, O. .....May 19
June 1. Court house, Monticello, Ky. .....May 26
June 1. Fire hose, Chicago, Ill. .....May 26
June 1. Steel bridge, Newnan, Ga. .....May 26
June 1. Cables, telephones, etc., Buffalo, N. Y. ...May 26
June 1. Macadam paving, Plainville, Conn. .....May 26
June 1. Brick paving, etc., Wilkes-Barre, Pa.....May 26
June 1. Water-works, Mokena, Ill.....May 26
June 2. Pipe sewers, Quincy, Mass. .....May 26
Advertised, Engineering News, May 26.
June 2. Light and water bonds, Charlotte, N. Y.....May 26
June 2. Masonry work, Jersey City, N. J. .....May 26
June 2. Electric light plant, Elkhorn, Wis. .....May 26
June 2. Conduits, Syracuse, N. Y. .....May 26
June 2. School building, Pittsburg, Pa. .....May 19
June 2. Electric lighting, Natchez, Miss. .....Apr. 21
June 3. Sewers, Cleveland, O. .....May 12
June 3. Stone pavements, Lansdowne, Pa. .....May 19
June 3. School building, East Cleveland, O. .....May 19
June 3. Macadamizing, Trenton, N. J. .....May 26
June 3. Court house, Parsons, W. Va. .....May 26
June 3. Paving (3 streets), Buffalo, N. Y. .....May 26
June 3. Curb and gutter, Massillon, O. .....May 26
June 4. Bridge superstructure, Leavittsburg, O. ....May 26
June 4. Water-works, Andover, N. B. .....May 26
June 4. Oil well, Bedford, Pa. .....May 19
June 4. Steel bridge, Valparaiso, Ind. .....May 19
June 4. Brick paving, Cambridge, O. .....May 12
Advertised, Engineering News, May 12.
June 4. Pipe sewers, Cambridge, O. .....May 12
Advertised, Engineering News, May 12.
June 6. Electric franchise, Gridley, Cal. .....Apr. 21
June 6. Paving, Toledo, O. .....May 5
June 6. Steel highway bridge, Pueblo, Colo. .....May 12
June 6. Steel bridges (3), Olivet, S. Dak. .....May 19
June 6. L't and water bonds, New Paynesville, Minn. May 19
June 6. Electric franchise (50 yrs), Bakersfield, Cal..May 19
June 6. Lighting hospital, Marysville, Cal. .....May 19
June 6. Paving and grading, Toledo, O. .....May 19
June 6. Sewerage system, Winooski, Vt. .....May 26
Advertised, Engineering News, May 26.
June 6. Telephone plant, Indianapolis, Ind. .....May 26
June 6. Water-works franchise, Williamsburg, Ky...May 26
June 6. School building repairs, New York, N. Y. ..May 26
June 6. Bridge, Alliance, O. .....May 26
June 6. School building, Calmar, Ia. .....May 26
June 6. Fishery building, Wytheville, Va. .....May 26
June 6. Building, Danville, Ill. .....May 26
June 6. Pipe sewers, Plainfield, N. J. .....May 26
June 6. Light plant franchise, Williamsburg, Ky....May 26
June 6. Paving, etc., Albany, N. Y. .....May 26
June 6. Stone crusher and roller, Wausaw, Wis.....May 26
June 6. Brick paving, Hornellsville, N. Y. .....May 26
Advertised, Eng. News, May 26 and June 2.
June 7. Grading and graveling, Stockton, Cal. .....May 26
June 7. Water bonds ($30,000), Norwalk, O. .....May 26
June 7. Water-works, Minden, Ia. .....May 26
Advertised, Engineering News, May 26.
June 7. Smokestack, East Dubuque, Ill. .....May 26
June 7. Sewerage system, Marion, Ind. .....May 19
Advertised, Engineering News, May 19.
June 7. Water bonds, Summit, Miss.....May 19
June 7. Street work, Kewaunee, Wis. .....May 19
June 7. Macadamizing, etc., Mount Vernon, N. Y...May 19
June 7. Removing wreck, Wilmington, Del. .....May 12
Advertised, Eng. News, May 12 to June 2.
June 7. County bridges (2), Alma, Kan. .....May 12
June 7. Steel bridge and plans, Franklin, Ky. .....May 12
Advertised, Engineering News, May 12.
June 7. Arc lights (50), Greenville, Miss. .....Apr. 28
June 8. Bridge, Salem, Ore. .....May 19
June 8. County road, Bozeman, Mont. .....Apr. 21
June 8. Road (3⅔ miles), Bozeman, Mont.....May 26
June 8. Fire water tower, New York, N. Y. .....May 26
June 8. By-pass, Chicago, Ill. .....May 26
Advertised, Engineering News, May 26.
June 8. Local sewer, Akron, O. .....May 26
June 8. Grading, etc., Akron, O. .....May 26
June 8. Removing garbage, etc., Hoboken, N. J...May 26
June 9. Water-works, Pipestone, Minn. .....May 26
June 9. Electric light plant, Fairfield, Ill. .....May 26
June 9. Water pipe, Chicago Junction, O.....May 26
Advertised, Eng. News, May 26 and June 2.
June 9. Earthwork, New Orleans, La. .....May 26
June 9. Paving (30,000 sq.yds.), Lima, O. .....May 12
June 9. Water-works, Sharpsville, Pa. .....May 19
Advertised, Engineering News, May 19.
June 10. Water pipe, etc., Cleveland, O. .....May 19
June 11. Road, Huntington, W. Va.....May 19
June 11. Army building, etc., Seattle, Wash. .....May 19
June 11. Brick paving, Swanton, O. .....May 26
Advertised, Engineering News, May 26.
June 13. Brick paving, curb, etc., So. Bend, Ind.....May 19
June 13. Pipe sewer (2,750 ft.), Lafayette, Ind.....May 19
June 13. Pipe sewers (2 streets), South Bend, Ind. ..May 19
June 13. Stone block paving, Toledo, O. .....May 26
June 14. Truss bridge, Columbus, O. .....May 26
June 14. Brick paving, Binghamton, N. Y. .....May 26
June 14. Stone substructure, Mercer, Pa. .....May 26
June 14. Macadamizing (12 miles), Indianapolis, Ind. May 26
June 14. Iron fence, Northampton, Mass.....May 26
June 14. Steam heating plant, Wahpeton, N. Dak.....May 26
June 15. School building plans, Shreveport, La. ....May 26
June 15. Jail building, Charlotteville, Va. .....May 26
June 15. Municipal building, Stratford, Ont. .....May 26
June 15. Pump, gas engine, etc., Oil City, Pa. .....May 12
Advertised, Eng. News, May 12 to 26.
June 16. Army buildings, New London, Conn.....May 26
June 16. School building, Onslow, Ia. .....May 26
June 16. Iron bridges (4), Mercer, Pa. .....May 26
June 16. Paving, Owasso, Mich. .....May 26
Advertised, Eng. News, May 26 and June 2.
June 18. Asphalt paving, Zanesville, O. .....May 26
June 18. Street work, Marietta, O. .....May 26
June 18. Electric light plant, Fitzgerald, Ga.....May 5
June 18. Water-works, etc., Fitzgerald, Ga.....May 5
June 20. Water-works bonds, Prescott, Ariz.....May 26
June 20. Bonds, Berea, O. .....May 26
June 20. Cleaning streets, Washington, D. C. .....May 26
June 20. Light station, Oswego, N. Y. .....May 26
June 21. Water bonds ($3,000), Greenwich, O. .....May 26
June 22. Masonry substructure, Youngstown, O. ....May 26
June 22. Reformatory building, Mansfield, O. .....May 26
June 22. Garbage bonds, etc., Milwaukee, Wis.....May 26
June 23. Pier, dredging, etc., Cleveland, O. .....May 26
Advertised, Eng. News, May 26 to June 16.
June 23. Post office building, San Francisco, Cal. ....May 26
June 24. Electric plant, Hawthorne, Australia. ....Apr. 14
June 24. Brick paving (10,000 sq.yds.), Lima, O.....May 19
June 25. Railway bridge, Chicago, Ill. .....May 12
Advertised, Eng. News, May 12 and 19.
June 29. River work, Chicago, Ill. .....May 12
Advertised, Eng. News, May 12 and 19.
July 1 Water power, Madras India .....Oct. 28
July 1. Plans for sewer system, Formby, Eng.....Apr. 7
July 1. Plans for sewer system, Cohoes, N. Y. ....Apr. 28
Advertised, Eng. News, Apr. 28 and May 5.
July 1. Power plant, Sault Ste. Marie, Mich. .....May 26
Advertised, Eng. News, April 14 to 28.
July 2. Water-works, Summit, Miss. .....May 19
July 7. Brick paving (20,000 sq.yds.), Lima, O. ....May 19
July 7. Iron or steel bridge, Kingfisher, Okla. Ter..May 19
July 10. School building, Rush City, Minn. .....May 26
July 11. Bridge, Breckenridge, Minn. .....May 19
July 15. Electric plant, Lamar, Colo. .....May 5
July 20. Bridge superstructures (5), Chicago, Ill.....May 26
Aug. 31. Custom house, Guayquil, Ecuador. .....Apr. 21
Sep. 12. Hospital plans, San Francisco, Cal. .....Mar. 24
Oct. 24. Markets, etc., Belem, Brazil .....Apr. 28
No date. Iron bridge (125 ft. long), Ridgetown, Ont..May 26

RAILWAYS.

ADDISON & PENNSYLVANIA.—Reports state that F. H. & C. W. Goodyear, Buffalo, N. Y., have bought this line of railway running from Addison, N. Y., to Galeton, Pa., 46 miles. It is said that new improvements will be made at once, and that it will be operated as a part of the Buffalo & Susquehanna R. R. system. W. W. Atwood, General Supt., Addison, N. Y.

ARIZONA & SOUTHEASTERN.—Ben. Williams, Supt., Bisbee, Ariz., informs us that the proposed Naco branch of this railway will soon be constructed from a point on the main line, eight miles west of Bisbee, to the boundary line between the United States and Mexico, a distance of about four miles. The work will be done by the company within the next 90 days. Pres., James Douglas, 99 John St., New York.

BURLINGTON & MISSOURI RIVER IN NEBRASKA.—We are informed that William Carr & Son, Tecumseh, Neb., have been awarded a contract for four miles of railway work between Tecumseh and Elk Creek, Neb. The work is to be completed by May 1, 1899. I. S. P. Weeks, Ch. Engr. Lincoln, Neb.

CAROLINA & NORTH WESTERN.—G. W. F. Harper, Pres., Lenoir, N. C., informs us that the grading is about completed for this proposed line between Hickory and Newton, N. C., a distance of ten miles. Rail and ties have been contracted for, and part of the former are en route. Contractors, J. R. Ervin & Co., Hickory, N. C. C. S. Dwight, Ch. Engr., Lenoir.

DAKOTA PACIFIC.—Wm. T. Coad, Pres., Rapid City, S. Dak., writes us that contracts will be let about June 14 for the construction of 70 miles of new road, from Rapid City to the Skull Creek coal fields of Wyoming. Some terminal improvements are expected to be made at Mystic, and ordinary passenger stations will be built every eight miles. Surveys have also to be made for a new line from Chamberlain to Sioux Falls, S.Dak. W. M. Wright, Ch.Engr., Rapid City.

DECATUR, DANSVILLE & SOUTHWESTERN.—Joseph Shackelford, Danville, Ala., writes us that the organization of this company has not yet been completed, but that the commissioners are now selling stock and securing the necessary right of way. The proposed route is from Decatur southwesterly to Tuskaloosa, via Jasper, Ala., a distance of about 125 miles, passing through the Warrior coal fields and fine pine forests. Comr., T. L. Baker, Danville, Ala.

DULUTH & NORTHERN MINNESOTA.—M. S. Smith, Pres., Detroit, Mich., informs us that nothing has been done towards the construction of this proposed logging railway, other than making some preliminary surveys. The route has not yet been decided upon. The incorporation of the company, with a capital stock of $200,000, was noted in our last issue.

MERCHANTS & MANUFACTURERS.—This company is being organized in Detroit, Mich., for the construction of a terminal railway and tunnel for the different railway systems passing through the city. We are informed that the plans are still in the preliminary stage. Among those interested are James Inglis, Albert Pack, Fred T. Moran, Frank W. Eddy and George H. Barbour. Lewis Warfield, Ch. Engr., 54 Wall St., New York.

MICHOACAN & PACIFIC.—L. R. Gordon, Gen. Supt., Zitacuaro, State of Michoacan, Mexico, informs us that this company proposes to build a new extension of its railway from Yurecuaro to Urnapam; 30 miles are already graded and work is being actively carried on. The length of the line when completed will be 300 kilometers (186.3 miles). The company is doing its own grading.

NEW YORK & OTTAWA.—F. D. Anthony, Ch. Engr., Cornwall, Ont., writes us that this company is at present completing the work, commenced Aug. 23, between Moira, N. Y., and Ottawa, Ont., which includes the construction of a large bridge over the St. Lawrence River at Cornwall, and of four other steel bridges over the Racket and St. Regis rivers in New York, and over Castor and Little Nation rivers in Ontario. Before frost and snow stopped the work for the winter, the grading had been done, the track laid, and the bridges erected on 53 miles on the Canadian side; grading was also completed on about one-half of the 17 miles south of Cornwall. The foundation of the St. Lawrence Bridge is well under way, and the foundations for the south channel bridge were to have been completed last week; false work is now going up on this bridge, and the metal work will probably be started soon. On the north channel, abutments and foundations for the viaduct approaches, and piers for the draw span over the Cornwall Canal, are completed, and the work is progressing on the four piers in the main river for the cantilever spans. Ballasting between Cornwall and Ottawa is expected to be completed in July, and the road ready for operation, as will also be the work on the track on the south side of the St. Lawrence River to a connection with the old line.

NORTH CAROLINA MIDLAND.—W. H. Wells, Ch.Engr., Cleveland, N. C., informs us that all the grading has been finished on the proposed line from Mocksville to Mooresville, via Woodleaf, Cleveland and Rowan, N. C., 27½ miles. It is expected to complete the trestle and masonry work by June 1; a steel bridge across the Yadkin River, being erected by the Pencoyd Iron Works, 261 South 4th St., Philadelphia, will also be completed about the same time. The contractors, T. B. Jones & Co., Baltimore, Md., have laid nine miles of track. Pres., A. B. Andrews, Raleigh, N. C.

PENSACOLA TERMINAL.—W. H. Northup, Pres., Pensacola, Fla., informs us that the Pensacola Electric Terminal Ry., mentioned in our last issue, is now fully equipped and is in operation. Nine miles of the railway is operated by steam, and the remaining seven miles is an electric street line. Geo. McDonald, Ch. Engr., Pensacola.

RED RIVER VALLEY.—This company was incorporated in Kentucky, May 19, with a capital stock of $25,000, to construct and operate a railway connecting Rothwell and Salyersville, a distance of 45 miles, 10 miles of which are already built. Wm. Hubbard, Jr., James Muir and Alfred French are among the incorporators.

SOUTHERN.—We are informed that a four-mile branch of this railway is now being built from Henry Ellen mines south to a new ore bank of the Sloss Iron & Steel Co., under the supervision of Coleman F. Fannin, Leeds, Ala. The work is to be completed by July 1.

SOUTH HAVEN & EASTERN.—M. V. Meredith, Gen. Mgr., Paw Paw, Mich., informs us that this line is to be made standard gage by July 30, and that Paw Paw township has voted to issue $10,000 in bonds for improvements to be made by the railway company. Pres., A. A. Patterson, Benton Harbor, Mich.; Ch. Engr., G. E. Drew, Paw Paw.

SUGAR CREEK.—J. W. Davis, Pres., Coffman, W. Va., informs us that one mile has been surveyed and partly graded on this proposed line from McDonald to Raleigh Court House, W. Va., along Sugar Creek, a distance of 18 miles. The project was enjoined two years ago by litigation, but the injunction was dissolved May 5 and the company reorganized at once with a capital stock of $250,000, of which $200 is paid in. J. O. Hundly, Ch. Engr., Lewisburg, W. Va.

STREET AND ELECTRIC RAILWAYS.

CANANDAIGUA, N. Y.—It is reported that the Canandaigua Electric Light & R. R. Co. has petitioned this town for a franchise to extend its trolley line to Manchester. C. J. Purdy, Gen. Supt.

LIBERTY, N. Y.—Rossiter, McGovern & Co., of New York, owners of the Liberty electric light plant, are stated to have purchased the Liberty & Jefferson Electric Ry. from Frank Lober, and that the construction of the proposed line will begin at once, and will be completed by July 1.

LOCKPORT, N. Y.—Reports state that the Lock City Electric Ry. will be sold at public sale, June 8, in this city. It is thought that the line will be bought by the Buffalo & Lockport Ry. Co., of which W. Caryl Ely, of Niagara Falls, N. Y., is president. The road is at present being improved, and it could be used as a connecting link between Buffalo and Lake Ontario.

MALONE, N. Y.—It is reported that the village board of trustees has granted a franchise to a company, to be known as the Malone Electric St. Ry. Co., for the construction of about nine miles of electric railway through Malone to Lakes Titus and Duane.

MILTON, N. Y.—J. V. W. O'Conner, of Coxsackie, informs us that the entire route has been surveyed and the right of way obtained for the proposed electric railway of the Greene County Traction Co., but that the capital for construction has not all been secured. The route will be from Milton to Oak Hill, via Greenville and Norton Hill, a distance of about 42 miles. Ties are now being laid, and two miles have been finished. Pres., G. C. Spencer, Coxsackie, N. Y.

NEW YORK, N. Y.—Press reports state that the Metropolitan St. Ry. Co. and the Third Ave. R. R. Co. have made application to the railroad commissioners for permission to change the motive power on all their cable lines to that of the underground electric system. The Metropolitan St. Ry. Co. has also made application to change the motive power on its horse lines to the underground trolley or compressed-air system. Hearings will be given by the commission on these applications on June 2, at the Fifth Ave. Hotel, 23d St. and 5th Ave.

NEW YORK, N.Y.—The Metropolitan St. Ry. Co., 621 Broadway, has filed plans for a new 4 and 6-story brick power house, to be built at 95th and 96th Sts. and 1st Ave. and Exterior St., at a cost of about $350,000. Arch., A. V. Porter, 621 Broadway.

PEEKSKILL, N. Y.—The village trustees have granted a franchise to the Peekskill Traction Co. for the construction of an electric railway through this place. The company was incorporated in April, with a capital stock of $150,000, by Dr. Charles Mason, Jas. H. Haight, Frank Frye, Chas. N. Wells and Hanford Smith, of Peekskill, and others.

ASBURY PARK, N. J.—The Asbury Park & Sea Girt R. R. Co. was incorporated in New Jersey, May 21, with a capital stock of $100,000, of which $25,000 is paid in. It is proposed to acquire the property of the Asbury Park & Belmar St. Ry. Co. and operate the line from Wesley Lake bridge to the borough of Belmar. The incorporators are, John E. Comins, Arlington, N. J.; Daniel H. Shea, 32 Liberty St., and H. B. Perine, 32 Nassau St., New York. Principal place of business will be at 701 Mattison Ave., Asbury Park.

PERTH AMBOY, N. J.—The board of aldermen is considering applications for franchises to operate a street railway through this town by the Perth Amboy & Sewaren Electric St. Ry. Co. and the Brunswick Traction Co. A new hearing will be given June 6.

RED BANK, N. J.—James E. Degnan, of Red Bank, is said to have been appointed receiver of the Atlantic Highlands, Red Bank & Long Branch Electric Ry. Co., now in operation between Red Bank and Long Branch. Pres., A. G. Greenberg, 29 Broadway, New York.

WESTFIELD, N. J.—Reports state that the Westfield township committee has granted a trolley franchise to the Elizabeth & Westfield St. Ry. Co., which proposes to construct a line between Plainfield and Elizabeth, and which is working in opposition to the proposed railway projected by Union county. A. A. Gaddis is said to be interested.

COPLAY, PA.—The Coplay, Egypt & Ironton St. Ry. Co. was incorporated, May 13, with a capital stock of $50,000, of which $5,000 is paid in, to construct and operate an electric street railway from Coplay to Ironton. The officers are: Pres., H. Y. Horn, Coplay; Directors, Jilson J. Coleman and Morris L. Kauffman, Allentown, Pa.; J. G. Heyle, Coplay; W. B. Clark, Catasaqua, Pa.

EPHRATA, PA.—The Ephrata Electric Ry. Co. was incorporated, May 17, with a capital stock of $15,000. The directors are F. E. Bailey, Philadelphia; S. N. Bailey, Dillsburg, Pa.; A. W. Mentzer, H. G. Mentzer, J. W. Von Neida, Ephrata

HOMESTEAD, PA.—Reports state that Frank J. and Ernest Erbeck, of Homestead, were awarded the contract, May 19, for the construction of the proposed extension of the Braddock & Homestead St. Ry. from Homestead to Duquesne, a distance of eight miles. Work has been commenced, and it is expected that the line will be in operation in three months. Pres., W. L. Mellon, of Pittsburg.

BALTIMORE, MD.—Bids are asked by Comptroller Fenhagen for the purchase of a franchise to lay tracks on Mary St., from Retreat St. to Fulton Ave. The Baltimore Consolidated Ry. Co. contemplates the construction of a branch line on the streets named. Pres., Nelson Perin.

MYERSVILLE, MD.—It is reported that Contractor Douglas, of Millersburg, Pa., has been awarded a contract for the construction of the Myersville & Catoctin Electric Ry.; work is expected to begin by June 1 and to be completed within 60 days. The line will be 5½ miles long, and will run from Myersville through several villages, connecting with the Frederick & Middletown Electric Ry., about half a mile east of Middletown. Pres., C. F. Flook, Frederick, Md.

BOWLING GREEN, O.—The Bowling Green Ry. Co. has been incorporated, with a capital stock of $40,000. The incorporators are C. H. Shield, J. C. Mahon and T. H. Whayne.

MOUNT CLEMENS, MICH.—Press reports state that A. F. Chapman & Co., of Buffalo, N. Y., have been awarded the contract for building the bridges, driving the piles, cribs, etc., for the proposed extension of the Rapid Ry. from Mount Clemens to Port Huron, across Lake St. Clair.

WAYNE, MICH.—J. C. Cozadd, of Wayne, informs us that the Detroit, Plymouth & Northville Electric Ry. Co. has obtained a franchise to construct an overhead trolley from Wayne to Northville, through the townships of Nankin, Livonia and Plymouth, a distance of 15 miles.

GENEVA, ILL.—It is reported that a 50-year franchise was granted May 24 to the Geneva Lake, Sycamore & Southern Electric Ry. Co., to construct a line from Geneva Lake, Wis., to Morris, Ill., 110 miles. The road is to carry passengers, mail, express and freight, and its general offices will be at Sycamore, Ill. The company was incorporated Jan. 13, 1898; work will commence at once.

ST. PAUL, MINN.—The board of aldermen has passed an ordinance granting a 41-year franchise to the St. Paul City Ry. Co. to construct and maintain an electric street railway through Como Park. If the city assembly passes the ordinance, the extension will probably be built soon.

IOLA, KAN.—The Iola Rapid Transit Co. was incorporated, May 17, with a capital stock of $10,000, to construct, maintain and own a street railway to extend from Iola to Moran. The directors are, Wm. S. Hendricks, Geo. A. Bowlus, Wm. J. Evans, J. Earl Chastain, Lewis L. Northrup, Alfred W. Beck and Eugene K. Taylor.

ST. LOUIS, MO.—Jas. F. Parr, 200 Sexton Bldg., East St. Louis, Ill., writes us that the St. Louis, Belleville & Suburban Ry. Co. has applied for a franchise over a part of Rock Road, within the city limits. It has just put into operation a 10-mile line of electric railway between the city limits of East St. Louis and of Belleville, Ill. Secy., Geo. Townsend.

SPOKANE, WASH.—It is reported that the Franklin Trust Co., of New York, has purchased all the property and franchises of the Ross Park St. Ry. Co.

SAN BERNARDINO, CAL.—Reports state that the present horse car line will be converted into an electric line, the power to be obtained from the present plant at this place.

ELECTRIC LIGHT AND POWER.

SOUTH BERWICK, ME.—It is stated that the plant of the Portsmouth Co. has been sold to Wallace, Macomber & Co., who propose to extend the electric plant.

ST. ALBANS, VT.—The legislature is reported to have been asked to grant this place authority to issue $150,000 in bonds for the purchase of a water power, land, etc., for the proposed plant. D. B. Hopkins, Treas., and Mayor Smith may be addressed.

SOMERSWORTH, N. H.—The council is reported to have directed the committee to secure estimates for the proposed municipal plant.

FOXBORO, MASS.—The owners of the Van Choate electric plant wish to sell it soon, according to press reports. If it is not sold soon the owners propose to transfer it to Attleboro.

CHARLOTTE, N. Y.—Bids are asked by the board of trustees, until June 2, for the purchase of $10,000 of 25-year light bonds for the proposed electric plant. P. M. Schwartz, Clk.

PORT JERVIS, N. Y.—The contract for lighting the city for three years with 107 arc lights has been let to the Deerpark Electric Light Co., Ltd., W. A. Parshall, Secy. This company had the city contract for last year.

SYRACUSE, N. Y.—The Syracuse Electric Light & Power Co. has asked for a franchise for building 75,000 ft. of subway for its wires. Mgr., W. H. Giroin.

WATERVLIET, N. Y.—Bids are asked until May 30 for furnishing and installing an engine, boilers, etc., for the proposed plant, and until June 1 for the purchase of $12,000 of 4% electric plant bonds. C. H. Fort and J. H. Jones may be addressed.

SEASIDE PARK, N. J.—Harry Reeves, Pres. Seaside Park Light, Water & Sewer Co., Camden, N. J., writes us that all bids are in for furnishing the material and for constructing the proposed plant to cost $7,000. It will have a capacity for 50 25-c. p. and 500 16-c. p. incandescent lights. The plant will be operated by gasoline engines.

LANCASTER, PA.—It is reported that the Lancaster Electric Light, Heat & Power Co. has decided to increase the capital stock from $150,000 to $250,000, and also to issue bonds to the amount of $100,000. The increase is to be used in enlarging the plant.

PECKVILLE, PA.—W. S. Bloes, Chn.Com., writes us that the proposed plant to be built by Blakely Bros. will have 4,000 incandescent lights; estimated cost, $14,000. Further information can be secured after June 6.

PITTSBURG, PA.—Bids are asked until May 27 for constructing a plant in the municipal hall and also for the electric wiring. E. M. Bigelow, Dir. Dept. Pub. Wks.

GRAFTON, W. VA.—John Bradshaw, Grafton, is reported as interested in the proposed water power plant at Valley Falls. J. B. Canning, Valley Falls, W. Va., may also be addressed.

SPRAY, N. C.—We are informed that Ladshaw & Ladshaw, Spartanburg, S. C., are making surveys for the proposed development of the water power at this place owned by the Spray Water Power & Land Co. It will be some weeks before anything definite can be given.

LAWRENCEBURG, KY.—Geo. W. Dyer, of Princeton, Ky., is reported to have been awarded the contract for lighting this city with electricity. A plant will be built at once. J. W. Waterfill, Clk. Council.

WILLIAMSBURG, KY.—Bids are asked until June 6 for the purchase of a franchise for a light plant and waterworks. A franchise was granted to Bell & Gagin some time ago, but they probably never did any work. J. M. Blakely, Mayor.

MINGO JUNCTION, O.—R. A. Bryant writes us that the city has granted a 25-year franchise for a light plant and water-works to Benj. L. Hirchfield, 427 Diamond St., Pittsburg, Pa. A plant will be built at once.

BAY CITY, MICH.—The committee is considering the question of purchasing another dynamo for the plant, to cost $1,000.

BELLAIRE, MICH.—The council is reported as making arrangements for building a plant.

SAULT STE. MARIE, MICH.—Bids are asked by the American Lake Superior Power Co. until July 1 for constructing its proposed plant, as advertised in Engineering News April 14 to 28. We are informed that the issue of specification set No. 7, Power House Construction, is unavoidably delayed until about June 1, and in order to enable contractors, who desire to do so, to submit bids upon all the constructions described in sets 1, 3, 5, 6 and 7 it has been decided to open all bids for any of the constructions on intake, canal or power house on July 1. H. von Schon, Ch. Engr.

BUNKER HILL, ILL.—Wm. N. Budd, Mayor, writes us that the proposition to issue $7,000 in bonds for a plant will be voted upon June 4. Aldermen Mehn, McPherson and Mercer are on the committee.

FAIRFIELD, ILL.—Bids are asked until about June 10 for furnishing the materials and for constructing a plant, and also for the purchase of $10,000 of 4% bonds. Mayor S. J. George writes us that the plant will have 30 to 40 1,200 to 2,000-c. p. arc and 1,00 incandescent lights.

ELKHORN, WIS.—Bids are asked, until June 2, for furnishing an engine, dynamos, poles, wire, switchboard, etc., for the proposed plant, to cost $10,000. We are informed that the plant will have a capacity for 30 arc and 2,000 incandescent lights. D. W. Stanford, Mayor.

MANNING, IA.—H. G. A. Brummer writes us that no franchise is likely to be granted soon for a plant for this place.

MITCHELL, S. DAK.—The plant at this place owned by the Mitchell Electric Co. was destroyed by fire May 15, causing a reported loss of $7,000. Pres. and Secy., M. B. Cleminger.

WATERTOWN, S. DAK.—The question of building a municipal plant is being considered, according to reports.

YOAKUM, TEX.—The Yoakum Improvement Co. has decided to improve its plant and water-works. Pres., Thos. Clarkson; Secy. and Mgr., J. W. Green.

CROCKETT, CAL.—W. C. Myles writes us that the proposed plant will have a capacity for 50 2,000-c. p. and 1,000 16-c. p. lights; estimated cost, $3,500.

SAN BERNARDINO, CAL.—The question of building an incandescent light plant is being considered.

WINNIPEG, MAN.—It is reported that Mr. Jameson is interested in a proposed power plant at the St. Andrews Rapids, to cost about $700,000.

NEW COMPANIES.—Key West Electric Co., Key West, Fla.; $300,000, with $1,000 paid in; Harry E. Knight, Westfield, N. J.; David J. Newland, William E. Knight, New York.

Suffolk Gas & Electric Light Co., Islip, L. I., N. Y.; to manufacture and supply gas and electricity in the towns of Islip and Babylon; $200,000; Charles F. Street, Hunter Wykes, William B. Hood, New York.

Creager Electric Light & Power Co., Fremont, O.; $50,000. Frank Creager, J. H. Clauss, J. M. Sherman.

Maranacook Electric Light & Power Co., Augusta, Me.; $10,000; President, Frank Ridlon, Dorchester, Mass.; Treas., John A. Hamblin, Augusta, Me.

Consumers' Light, Heat & Power Co., Elizabeth, N. J.; $1,000,000, with $1,400 paid in; Geo. F. Chapman, Elizabeth; David Young, John W. Omberson, Newark, N. J.; Wm. J. Davis, Harrison, N. J.; John E. McArthur, Jersey City, N. J.

Sea Side Park Light, Water & Power Co., 227 Market St., Camden, N. J.; $100,000, with $1,000 paid in; to improve Sea Side Park, N. J.; Francis R. Fithian, Bridgeton, N. J.; Wm. J. Bradley, Camden, N. J.; Harry Reeves, Gloucester, N. J.

BRIDGES.

MANCHESTER, N. H.—T. C. Clark, Mayor, informs us that no steps have yet been taken toward the construction of the proposed bridge at Kelly's Falls, mentioned in our last issue.

BRATTLEBORO, VT.—Reports state that a bridge will be constructed across Whetstone Brook at Main St., to cost about $15,000.

ENOSBURG FALLS, VT.—Reports state that the selectmen will construct bridges over Giddings Brook at St. Albins St. and Orchard St.

CHESHIRE, MASS.—This town will construct a bridge at Cheshire Harbor.

WORCESTER, MASS.—Reports state that the bridge committee has voted to ask the Webb Granite & Construction Co. to bid on the construction of a steel-deck bridge 500 ft. long and 50 ft. wide over the causeway; not to cost over $108,000.

HERKIMER, N. Y.—A bridge will be constructed by the Canton Bridge Co., Canton, O., over the canal at Steel St., to cost $649.

LONG ISLAND CITY, N. Y.—It is stated that bids will soon be asked for the construction of a steel bridge across Newtown Creek at Blissville. John L. Shea, Comr. Dept. Bridges.

MIDDLETOWN, N. Y.—The Horseheads Bridge Co., Horseheads, N. Y., has been awarded a contract to construct a steel truss bridge 940 ft. long of three spans; estimated cost, $24,500.

PORTCHESTER, N. Y.—The question of repairing or constructing a new bridge over the New York, New Haven & Hartford R. R. at Kings St., is being considered by the state railroad commissioners, according to reports.

BAYONNE, N. J.—The Central R. R. of New Jersey is to construct a new bridge at West 8th St.

MERCER, PA.—Bids are asked until June 14 for building the stone substructure of two bridges, and until June 16 for constructing four iron bridges with a capacity of 125 lbs. per sq. ft., according to reports. Geo. E. Hamilton, County Clk.

PITTSBURG, PA.—The Pittsburg & Mansfield R. R. Co. has awarded a contract to Curran & Hussey for constructing a bridge about 1,684 ft. long at Ferry St. E. K. Morse, Ch. Engr.; M. L. Knight, Pres.; Wm. Roseburg, Secy.——The Shiffler Bridge Co. has been awarded a contract by Laughling & Co., Ltd., for the construction of a steel viaduct on 2d Ave.; about 1,500 tons of steel will be used.——Reports state that the Pennsylvania R. R. Co. will consider the question of replacing its bridge over the Monongahela River with a four-track structure.

CARLISLE, PA.—It is reported that plans are being prepared for the construction of a bridge at Bishop's Ford.

PITTSBURG, PA.—A contract has been awarded to the Pittsburg Bridge Co., at $12,336, for constructing the superstructures of six county bridges.

WILMINGTON, DEL.—The Edge Moor Bridge Wks., Wilmington, has been awarded a contract, at $4,000, to construct two steel bridges.

WASHINGTON, D. C.—A bill has been introduced appropriating $300,000 for the construction of a bridge over the Anacostia River, on 1st St. Maj. C. E. L. B. Davis, U. S. Engr.

JACKSON, MISS.—A committee of the board of aldermen has directed Walter G. Kirkpatrick, Cy. Engr., to make plans for a bridge on Capitol St., 100 ft. wide, 86 ft. span; alternate plans for a steel bridge and a brick arch are to be submitted at the June meeting of the board.

NEWNAN, GA.—Bids are asked until June 1 for constructing a steel bridge, 234 ft. long, over White Oak Creek. W. L. Stallings, County Clk.

ALLIANCE, O.—Bids are asked by the county commissioners until June 6 for constructing a bridge 110 ft. long and 18 ft. wide over the Mahoning River. The former bids have been rejected, according to reports.

COLUMBUS, O.—Bids are asked until June 14 for constructing a truss bridge 259 ft. long over Big Walnut Creek. W. H. Halliday, County Audr.

LEAVITTSBURG, O.—Bids are asked until June 4 for constructing a 150-ft. bridge superstructure over the Mahoning River. Chas. B. Selby, County Audr., Warren.

TOLEDO, O.—Bids are asked until June 20 for building the abutments to one bridge. Wm. M. Godfrey, County Audr.

YOUNGSTOWN, O.—Bids are asked until June 22 for constructing the masonry substructure of the South Ave. bridge over the Mahoning River. C. F. Brenner, County Audr.

MONTICELLO, IND.—W. P. Bushnell, Cy. Engr., writes us that a contract was awarded to James M. Peirce May 5, at $8,700, for constructing the masonry substructure of a bridge 271 ft. long.

WEST BRANCH, MICH.—Reports state that an iron bridge is to be erected over the Rifle River.

CHICAGO, ILL.—Bids are asked until July 20 for constructing the superstructure of five bridges over the main drainage channel. Five sureties of $1,000 each. James Reddick, Clk. Bd. Trustees, Sanitary District.

TUSCOLA, ILL.—The county commissioners will construct four bridges, estimated to cost $18,000, according to reports.

AUSTIN, TEX.—George A. Brush informs us that a 1,500-ft. trestle will be constructed over the Colorado River at Congress Ave.

RIDGETOWN, ONT.—Bids are asked for the construction of an iron bridge over the Sydenham River, 125 ft. long and 16 ft. wide, and also for the construction of two masonry piers to contain approximately 235 cu. yds. Address Angus Smith.

BUILDINGS.

FALL RIVER, MASS.—Bids are asked by the committee on water-works in conjunction with the Watuppa water board, until May 27, for the construction of a brick building at Pocasset and 3d Sts. Chn., Alfred H. Hartley; Arch., Louis G. Destremps, Borden Block.

NEW LONDON, CONN.—Bids are asked until June 16 for grading and materials and construction of ten buildings and plumbing and heating thereof, at Plum Island, N. Y. Capt. M. Crawford, Q. M., Fort Trumbull, New London.

BROOKLYN, N. Y.—A fire in this city, May 21, damaged the piano warehouse of Louis Chevalier, and adjoining frame buildings owned by Charles Heidelberger, causing a reported loss of $30,000.

BUFFALO, N. Y.—Bids are asked until May 28 for the purchase of $100,000 of consolidated school loan bonds; also for $200,000 of grading bonds. Erastus C. Knight, Cy. Comptroller.——William Luther & Co. have been awarded the contract for building a 3-story brick apartment house at Lexington and Elmwood Aves., for Richard Robinson, of Detroit, Mich., to cost about $78,000. Arch., L. P. J. Eckel, of Buffalo.——Hand & Greenberg have prepared plans for a malt house, elevator and kiln for the C. G. Curtiss estate, to cost about $100,000.——Metzger & Greenfield, White Bldg., have prepared plans for St. Vincent's Orphan Asylum, for a 5-story brick building with steam heating and ventilating, to cost $100,000.

BUFFALO, N. Y.—We are informed that F. C. H. Mohr, 265 East Utica St., is preparing plans for a new $75,000 school building for this city.——Architects Esenwein & Johnson are preparing plans for a $75,000 apartment house for A. Judson Wells.——Architects Brown & Brown are preparing plans for four buildings to be added to the state hospital group in this city. The buildings will be 4-story brick structures, costing about $10,000 each.——Carl Schmill, Morgan Bldg., is preparing plans for a monastery and parochial school building to be erected for the Franciscan Fathers at Clark and Kent Sts.; estimated cost, $100,000.——The board of public works has been ordered to prepare plans for a 24-room school building for district No. 19.

NEW YORK, N. Y.—Bids are asked by the board of education, at 585 Broadway, until May 31, for making alterations to Public School Buildings, Nos. 7, 19, 22, 23, 29, 36, 71, 75, 79, 92 and 108.——John F. O'Rourke, 44 Broadway, has been awarded contracts for the excavation, shoring and foundations for the new Phelps-Dodge building to be erected at Cliff and John Sts.; also for the building to be erected at Maiden Lane and Gold St. Work will begin at once.——Milliken Bros., 39 Cortlandt St., have been awarded the iron and steel contract for the warehouse to be erected on Hudson and Spring Sts. Arch., C. C. Haight, 111 Broadway.——Plans have been filed by the Metropolitan St. Ry. Co., 621 Broadway, for a 4 and 6-story brick power house to be erected at 95th and 96th Sts. and 1st Ave. and Exterior St., at a cost of about $350,000. Arch., A. V. Porter, 621 Broadway; by A. D. Russell for a 6-story brick warehouse at 100 and 102 Gansevoort St. and 528 and 530 West St., to cost $60,000. Arch., L. C. Holden, 1 Union Square; by Tully & Evans, for two 6-story brick flat buildings on Gouverneur, near Monroe St., to cost $56,000. Arch., L. F. J. Weiher, Jr., 125th St and Park Ave.; by J. J. Buckley, 55 West 11th St., for a 6-story brick store and loft building, at Elm and Howard Sts., to cost $75,000. Arch., T. S. Godwin, 279 First St.; by Henry E. Hillier, 201 West 95th St., for two 5-story brick flat buildings at 140th St. and Amsterdam Ave., to cost $65,000. Archs., Jones & Leo, 35 Broad St.; by S. Willershausen, 60 Greenwich St., for four 5-story brick flat buildings on 89th St., near Columbus Ave., to cost $80,000. Arch., M. V. B. Ferdon, 64 East 90th St.; by Barnum & Lippman, 130 West 67th St., for four 5-story brick flat and store buildings, at 100th St., near Park Ave., to cost $64,000. Arch., Thomas Graham, 1238 Madison Ave.; by L. W. Dinkelspiel, 30 Broad St., for a 2-story brick and stone theatre building, 88.5 x 100.5 ft., on 65th St., between Amsterdam Ave. and the Boulevard, to cost $85,000. Archs., Werner & Windolph, 92 Liberty St.

NEW YORK, N. Y.—Bids are asked by the board of education, at 585 Broadway, until June 6, for making alterations, repairs, etc., at Public Schools 5, 43, 46 and annex, and Public School 80; also for building a retaining wall at the Mixed High School; also for improving the sanitary condition of Public Schools 15, 19, 25, 36, 92 and 140; also for installing electric light plant in Public School 67; also for supplying glass for the Public Schools in the Boroughs of Manhattan and The Bronx.——Plans have been filed by Jacob Lorillard, Westchester, New York, for a 10-story brick building at 296 Broadway, to cost $70,000. Archs., Jordan & Giller, 19 Park Place.

OSWEGO, N. Y.—Bids are asked until June 20 for constructing the buildings for Carlton Island Light Station. Major W. S. Stanton, U. S. Engrs., Oswego.

POTSDAM, N. Y.—It is announced that a state appropriation of $40,000 has been made for the erection of a new building for the Potsdam State Normal School.

ROME, N. Y.—Andrew Douglas, Binghamton, N. Y., has been awarded the contract for erecting the new high school building in Rome, at $57,000. The contract for heating and ventilating has not yet been let.

WEST TROY, N. Y.—Plans have been adopted, according to reports, for the new school building to be erected at 4th Ave. and 24th St., Watervliet. Arch., A. W. Fuller, Albany, N. Y.

MONTCLAIR, N. J.—We are informed that the specifications and working plans have not yet been prepared for the proposed church and chapel buildings to be built at Midland and Claremont Aves., for the Trinity Presbyterian Church; total cost, about $50,000. The chapel, which will cost about $15,000, will alone be built at present. Pastor, Orville Reed; Archs., Benson & Brockway, 55 Broadway.

NEWARK, N. J.—The following were the two lowest bids received May 16 for work on the construction of the new library building for the Free Public Library; Archs., Rankin & Kellogg, 1024 Walnut St., Philadelphia, Pa.: For mason work, as advertised, J. E. H. Pennock, of Philadelphia, $164,500; and Henry Dickson, Newark, $167,000; for carpenter work, McIlvain, Unkefer & Co., of Pittsburg, $35,200, and J. E. H. Pennock, $43,000; for plumbing, Elias Berla, $4,720, and P. J. Carlin & Co., $5,000; for heating and ventilating, Philadelphia Steam Heating Co., $23,500, and A. J. Simpson, Newark, $21,700; for engines and dynamos, Blake, Williams & Co., $15,325, and D'Oliver Engine Co., $16,408; for elevators, Francis Bros. & Co., $3,170, and Otis Bros. & Co., $3,170. Press reports state that the trustees have decided to have the plans modified and to readvertise for bids, as the total of the lowest bids exceeds the appropriation by about $50,000.

ALLENTOWN, PA.—Plans are being prepared, by L. S. Jacoby and A. S. Weishampel, according to reports, for a 2-story office building to be erected in this city for F. A. R. Baldwin, at a cost of about $90,000.

BRADFORD, PA.—Bids will soon be asked by the school board for the erection of a new school, to cost about $35,000. Archs., Pierce & Bickford, 118 Lake St., Elmira, N. Y.

GLEN MILLS, PA.—Charles McCaul, of Philadelphia, has been awarded the contract for erecting a new brick gymnasium building, 97.5 × 141 ft., for the House of Refuge at this place.

LANCASTER, PA.—It is reported that plans are being prepared for a new asylum building to be erected at this place, at a cost of about $60,000. Arch., C. E. Urban, Trust Co. Bldg., Lancaster.

PHILADELPHIA, PA.—Bids are asked, according to reports, for the erection of a one-story brick and stone church building at Allegheny Ave. and Gaul St., to cost about $40,000. Arch., F. C. Koenig, 491 Parkside Ave.——Plans are being prepared for a convent building for the Sisters of the Holy Child Jesus at Chestnut Hill, to cost about $40,000. Arch., Frank R. Watson, 518 Walnut St.

PITTSBURG, PA.—Bids are asked by the city controller, until May 27, for alterations and decoration to council chambers, for two hydraulic elevators, an electric light plant, etc.

WASHINGTON, PA.—We are informed that the heating and plumbing work were not included in the contract given to William Miller & Sons, Carnegie Bldg., Pittsburg, Pa., for the erection of the new court house for Washington county, to cost, when completed, about $500,000. Arch., F. J. Osterling, Times Bldg., Pittsburg.

ST. MARYS, PA.—W. V. Hughs, Altoona, Pa., is reported as having received the contract for building the new poor house at this place, at $47,482.

WASHINGTON, D. C.—The Farragut Bldg. Co., of which W. V. Berry is president; B. S. Miner, vice-president; A. S. Kingsbury, of Boston, treasurer; A. F. Rosenheim, of Boston, secretary, will shortly erect an 8-story fireproof apartment building at 17th and L Sts. N. W., at an estimated cost of $600,000. Arch., A. F. Rosenheim, of Boston.

CHARLOTTEVILLE, VA.—Bids are asked, until June 15, for erecting an addition to the county and city jail building. Chn., M. Letterman; Arch., W. T. Vandegrift.

HOT SPRINGS, VA.—Reports state that J. P. Pettyjohn & Son, of Lynchburg, Va., have been awarded the contract for the erection of an addition to the Homestead Hotel, to cost $70,000.

WYTHEVILLE, VA.—Bids are asked by the commission of fish and fisheries, Washington, D. C., until June 6, for the construction of a dwelling at Wytheville. Comr., Geo. M. Bowers.

PARSONS, W. VA.—Wm M. Cayton, Clk., of Tucker county, Parsons, informs us that bids are asked until June 3 for the construction of a new court house complete, 112 × 76 ft; to cost about $39,000. The building will be heated by steam, and it will be wired for an electric light system to be subsequently installed. Arch., Frank P. Milburn, Charlotte, N. C.

MONTGOMERY, ALA.—It is reported that the Knoxville Bldg. & Construction Co., of Knoxville, Tenn., has received the contract for the erection of a $50,000 storehouse for Greil Bros. & Co.

SHREVEPORT, LA.—Plans are asked, until June 15, for a 3-story brick school building to be built in this city, at a cost of about $25,000. H. H. Hargrove, Secy. Com.

COVINGTON, KY.—Samuel Hornbrook has received the contract for erecting a new 4-story building for the Bell Estate, at Vine and 6th Sts., to cost about $40,000. Archs., S. Hannaford & Sons, Hulbert Block, Cincinnati, O.

MONTICELLO, KY.—Bids are asked until June 1 for the erection and completion of a new court house building at this place; deposit required, $500. A. Fairchild, County Clk.; Frank P. Milburn, Arch., Charlotte, N. C.

MANSFIELD, O.—Bids are asked by the managers of the Ohio State Reformatory, until June 22, for the construction of the stone and brick work of the east cell and lateral wings of the Ohio State Reformatory, etc. Bond required, $5,000. Secy., D. H. Gibson, Jr., Mansfield.

TOLEDO, O.—A fire in this city, May 20, damaged the wholesale grocery building of Dow & Snell, at Superior and Jefferson Sts., causing a reported loss of $350,000. The building is said to have been worth $50,000, and was insured for $40,000.

HILLSBORO, MICH.—Plans have been accepted for the proposed county court house for Hillboro county, to cost $45,000. Arch., Claire Allen, Main St., Jackson, Mich.

DANVILLE, ILL.—Bids are asked, until June 6, for erecting a mess hall and kitchen building at the Danville branch of the National Home for Disabled Volunteer Soldiers, near Danville.

KEWAUNEE, WIS.—A fire in this city, May 20, destroyed about twenty business buildings, causing a reported loss of $90,000.

CALMAR, IA.—Bids are asked by the school board, until June 6, for erecting a new school building. Secy., J. B. Kaye; Arch., F. W. Kinney, Austin, Minn.

ONSLOW, IA.—Bids are asked, until June 16, for erecting a school building in this town. Joseph A. Paul, Secy. School Bd.

CLOQUET, MINN.—Bids are asked by the board of education, until May 28, for erecting an 8-room brick school building. Clk., Albert Cox; Arch., Geo. L. Scoville, West Superior, Wis.

ROCHESTER, MINN.—M. Heffron, of Rochester, has been awarded the contract for erecting an additional building for the St. Mary's Hospital, at $12,976.

RUSH CITY, MINN.—Bids are asked, until July 10, for the erection of a new school building in this city; also for heating and ventilating of the same. Plans may be seen after June 10. Clk., J. E. Gemmel; Archs., Omeyer & Thorl, Chamber of Commerce Bldg., St. Paul, Minn.

WAHPETON, N. DAK.—Bids are asked by the board of education, until June 14, for a steam heating plant. Clk., A. L. Roberts; Arch., Schuler, Wahpeton.

CHEYENNE, WYO.—Robert W. Bradley, of Cheyenne, has received the contract for excavation, foundation, etc., for the U. S. building to be erected in this city, at $39,696. The other bids were published in our issue of May 12.

SAN FRANCISCO, CAL.—Bids are asked by the supervising architect, Washington, D. C., until June 23, for the constructive steel work, roof framing, etc., of the U. S. building in this city.

SHERBROOKE, QUE.—Bids are asked, until May 28, for the construction of a fireproof building for the Seminary of St. Charles Barromee. Arch., Jos. J. B. Verret, 42 Grove St.

ST. THOMAS, ONT.—Bids are asked, until May 31, for all mason work, carpenter work, etc., required in erecting a city hall building. R. Sanders, Chn. Bldg. Com.; N. R. Darrach, Arch., St. Thomas.

STRATFORD, ONT.—Bids are asked, until June 15, for the erection of a new municipal building; also for reconstruction on the walls of the old building lately destroyed by fire. George F. Ingram, Chn. Com.

WATER-WORKS.

TURNER'S FALLS, MASS.—The committee is considering the question of purchasing a new pump and making other improvements to the pumping station at a cost of $13,000. Engr., Percy M. Blake, Hyde Park, Mass.; J. F. Bartlett, W. E. Everett and H. O. Smith are on the committee.

ALBANY, N. Y.—Geo. I. Bailey, Supt. water-works, informs us that the following bids were received May 17 for the pumping machinery in connection with the water filtration plant; all bidders from New York city: Prindle Pump Co., $22,000; Burhorn & Granger, $23,658; P. H. & F. M. Roots Co., $25,496; alternative bid, $26,296. The duty of the pumps is as follows: Prindle, 55,000,000 to 60,000,000 gallons; Burhorn, 60,000,000; Roots, 55,000,000.

BUFFALO, N. Y.—The board of public works has been directed to prepare plans and call for bids for pipe, hydrants, valves, water boxes, water meters and special castings for use by the water department during the coming year.

CHARLOTTE, N. Y.—Bids are asked by the trustees until June 2 for the purchase of $25,000 of bonds for the proposed works. Engrs., Stanwix Engineering Co., Rome, N. Y.; Clk., P. M. Schwartz.

ROCHESTER, N. Y.—The Eagle Point Co., of Rochester, has been incorporated to deal in lands and furnish water supply to Eagle Point, Livingston county; capital stock, $1,200; directors, L. L. Williams, F. W. Zimmer, T. B. Ryder, J. H. Gilmore, Jr., Horace McGuire, of Rochester.

MOUNT KISCO, N. Y.—R. B. Lewis & Co., Herkimer, N. Y., submitted the lowest bid May 11 for constructing the proposed works at $18,991. The next lowest bid was that of J. W. McConnell, at $19,850. Walter E. Osborne, Clk.

BROOKLYN, N. Y.—The Crawford Water Co., of Brooklyn, has purchased a pond in Patchogue which will be used to increase the water supply. John J. Bartlett, Greenport (L. I.), N. Y., is interested.

ROME, N. Y.—F. A. Coleman, Cy. Engr., writes us that work on the plans for a new pumping plant for additional fire protection is now under way; no estimates therefor being obtainable. Engrs., Stanwix Engineering Co., Rome; Mayor, J. S. Haselton.

SEASIDE PARK, N. J.—The Seaside Park Light, Water & Sewer Co., 227 Market St., Camden, N. J., has been incorporated with a capital stock of $100,000 by Francis H. Fithian, Bridgeton; Wm. J. Bradley, Camden, and Harry Reeves, Gloucester, N. J. It is probable that the company has let all contracts.

TOM'S RIVER, N. J.—The National Meter Co., 84 and 86 Chambers St., New York, recently sold two 20-HP. Nash gasoline engines to operate two Gould Triplex Pumps of a complete water-works at Tom's River. Engr., E. J. Everett, Jr., 253 Broadway, New York.

JOHNSTOWN, PA.—The Johnstown Water Co. will soon begin the construction of its proposed new Mill Creek reservoir, surveys for which have been completed. It will probably have a capacity for 40,000,000 gallons. The company has completed the laying of 4,000 ft. of 36-in. mains. These improvements will cost about $200,000. Secy., Anderson H. Walters.

READING, PA.—Frank A. Lyon, Pres. Bd. Comrs., writes us that the board has reported to the councils formerly and has recommended a sum of $225,000 for building filtration beds for the water supply. No action has yet been taken by the councils.

AMERICUS, GA.—John B. Felder, Americus, is reported to have been awarded the contract for supplying the pipe, etc., and for extending the works at about $8,983. J. B. Ansley, Cy. Engr., and City Clerk Davis may be addressed.

ROGERSVILLE, TENN.—The mayor writes us that the proposition to issue $18,000 in bonds for works was defeated at the election May 18.

WILLIAMSBURG, KY.—Bids are asked, until June 6, for the purchase of a franchise for works and an electric plant; population, 2,500. J. M. Blakely, Mayor.

CHICAGO JUNCTION, O.—Bids are asked, until June 9, for furnishing 550 tons of cast-iron water pipe, as stated in our advertising columns. Louis Simmermacher, Clk.; Chas. F. Sturdevant, Engr.

CUYAHOGA FALLS, O.—Geo. Paul, Trustee, writes us that the circuit court has sustained the injunction restraining the county auditor from putting a levy on the bonds voted in September. Another vote on the question of issuing $70,000 in bonds will be taken June 15.

GREENWICH, O.—Bids are asked by the village clerk, until June 21, for the purchase of $3,000 of 6% 20 to 22-year water bonds.

MINGO JUNCTION, O.—R. A. Bryant, Secy. Bd. of Trade, writes us that a 25-year franchise has been granted to Benj. L. Hirchfield, 427 Diamond St., Pittsburg, Pa. Population, 2,800.

NORWALK, O.—Bids are asked until June 7 for the purchase of $30,000 of bonds for improving the works. The improvements will consist of a pumping station, 60 × 90 ft., a new pump and a stand-pipe of 370,000 gallons capacity. Engr., L. E. Chapin, Canton, O.; Secy. and Supt., A. F. Rowland.

RUSHSYLVANIA, O.—J. Harry Miller, Quincy, O., writes us that this place is still open for bids for building small works.

MITCHELL, IND.—B. McApo, Clk. and Treas., writes us that there has been talk of building works, but at present the matter has been dropped. Population, 2,000.

ROCKVILLE, IND.—J. V. D. Coleman, Town Clk., writes us that the town board at present is doing nothing in regard to the proposed works. W. N. Carlisle, Pres. Bd.

CASS CITY, MICH.—This city will soon vote again on the question of issuing $18,000 in bonds for works and a light plant. C. W. Keller, Councilman, may be addressed.

CHEBOYGAN, MICH.—L. D. Hagerty, Chn. Com., writes us that it is proposed to purchase an air lift pump to cost about $4,500.

ESCANABA, MICH.—The Escanaba Water Co. was incorporated in West Virginia, May 21, with a capital stock of $30,000, of which $50 is paid in; incorporators, J. F. Moffett, Watertown, N. Y.; A. M. Whitney, New York; T. M. Hall, Buffalo, N. Y., and E. B. Cadwell, Chicago, Ill. This is probably a reorganization of the Escanaba Water-Works Co., its works being sold last February.

ALTON, ILL.—The New England Water-Works Co. has let a contract for a filter to the New York Filter Mfg. Co., 120 Liberty St., New York, and 73 West Jackson St., Chicago, to cost about $12,000.

MOKENA, ILL.—Bids are asked until June 1 for furnishing the materials and for building the proposed works, according to reports. W. D. Jones, Village Treas.

SPARTA, ILL.—W. R. Stephenson, Mayor, writes us that the water-works committee has not yet been appointed. The works will have four miles of mains, 42 hydrants, two 750,000-gallon engines, etc.

EDGERTON, MINN.—W. N. Bemis, Pres. Council, writes us that this place will soon vote on the question of issuing $4,000 in bonds for 1,600 ft. 6 and 8-in. pipe, hydrants, etc.

MINDEN, IA.—Bids are asked until June 7 for building works, as stated in our advertising columns; estimated cost, $5,000. John W. Crow, Mayor.

MORRIS, MINN.—This place is reported to have voted, May 19, to issue $25,000 in bonds for the proposed works. Engrs., Iowa Engineering Co., Clinton, Ia.; Pres., Anton Watzke.

PIPESTONE, MINN.—Bids are asked by De W. S. Harris, Supt. Indian Industrial School, Pipestone, or the Indian Office, Washington, D. C., for building works.

SPARTA, MINN.—C. Bender, Recdr., writes us that specifications for the proposed works have just been received. The works will have 53 tons of 6-in. cast-iron water pipe, 7½ tons of light 8-in. cast-iron pipe, 2 tons special castings, 8 hydrants, 6 gate valves, a duplex pump, 4,000 lbs. of lead, a 30-HP. vertical engine, etc.; estimated cost, about $6,000. Engrs., Patton & Frank, Duluth, Minn.

WINNEBAGO, MINN.—W. M. Wasgatt, Recdr., writes us that it is proposed to build a 75,000-gallon cistern, put in duplicate pumps, extend mains, etc.

COMMERCE, TEX.—J. Y. Hall, Cy. Secy. and Treas., writes us that action with regard to the proposed works has been postponed indefinitely.

YOAKUM, TEX.—It is stated that the Yoakum Improvement Co. will extend its works and light plant. Pres., Thos. Clarkson; Secy. and Mgr., J. W. Green.

WARD, COLO.—N. D. Sibley, Mayor, writes us that the town has not decided on full plan as yet in regard to a water supply; but it is probable that the works will be put in this summer. Population, 2,000. Wm. Thompson, F. C. Marsh and Harry Yates are on the committee.

SEATTLE, WASH.—A. Hambach and the John Schram Co. have been awarded the contracts for furnishing and laying the pipe to the army post, to cost $15,000.

SPOKANE, WASH.—Local papers state that the board of city commissioners has awarded the contracts for the extensions of the works on the north side of the river. Farrell & McClellan have the contract for furnishing the pipe at about $40,000. Peter Costello will dig the trenches and supply the concrete for the foundation of the power house for about $10,000. The Union Iron Works has the contract at $2,100 for supplying bolts, castings, etc. Oliver Bros. will build the extension to the power house for $1,695, and Oskar Huber will put in a wheel for $510. Other portions of the work the board will do itself.

TACOMA, WASH.—It is stated that at least three-quarters of a mile of the Clover Creek water flume will have to be rebuilt at once. Other improvements will also be made in the flume, which is about nine miles long. Commissioner of Public Works Hacker may be addressed.

LONG BEACH, CAL.—The city clerk writes us that the Bouton Water Co. has made application for permission to extend its mains south of 10th St.

MONROVIA, CAL.—This place voted, May 14, to issue $25,000 of 6% bonds for completing the works. W. A. Walker, Cy. Clk.

NAPA, CAL.—O. H. Buckman, Cy. Engr., informs us as follows regarding the proposed new supply: The plant which at present furnishes the city with water is owned by Napa City Water Co. The supply is obtained by pumping from the Napa River about two miles from town, and there is plenty of water, but the quality is not very good during the summer season, and the pressure is insufficient when much water is being used, the distributing reservoir being too low. The objectional quality of water and the low pressure cause a great deal of complaint and dissatisfaction, and many citizens are in favor of bonding the city for the purpose of obtaining a supply from a mountain creek about 12 miles from the city, and purchasing the plant of the company and having the whole system under municipal ownership. Mr. Buckman was, therefore, directed by the council about two weeks ago to make a preliminary survey and estimates of the probable cost of the work, to see whether or not it could be done within the limit to which the law would permit the city to be bonded for the purpose. He has not completed the survey and estimates yet, and cannot at present give any definite information about the cost.

ORANGE, CAL.—The Santiago Land & Water Co. has been granted a franchise for new works in this place.

PASO ROBLES, CAL.—Lyman Brewer, Pres. Bd. Trustees, writes us that nothing has been done as yet in regard to the proposed works and light plant, etc.

COALVILLE, UTAH.—Robt. C. Gemmell, Salt Lake City, has been awarded the contract for building the works.

RENO, NEV.—Bids are asked, until June 13, for the purchase of $130,000 of water-works bonds. F. B. Porter, Cy. Clk.

FLAGSTAFF, ARIZ.—C. H. Edwards, Town Clk., writes us that no contracts have been let as yet for the proposed works. There will be required 17 miles of mains, with a fall of 2,000 ft., to furnish 200,000 gallons a day, and 15 miles of piping in the city, and about 25 fire hydrants, besides service pipes, etc.; population, 1,000.

PRESCOTT, ARIZ.—Bids are asked until June 20 for the purchase of $150,000 of bonds for the proposed works and sewerage system, recently voted for. J. J. Fisher, Cy. Engr.; T. L. Shultz, Cy. Clk. Press reports state as follows regarding the proposed works: Two sites are proposed for the storage reservoir for the city. One is 1½ miles west of town. The proposed dam for the reservoir will be 1,450 ft. long and 57 ft. high, to be made of rock and dirt. The other proposed site is 3½ miles from town. A dam here would only be 320 ft. long on the top, and would hold back 160,000,000 gallons. An arched overflow dam would be required here.

PICTOU, N. S.—Jas. Yorston, Mayor, writes us that no steps have been taken yet towards securing a water supply from Saw Mill Creek. Population, 3,000. Engrs., Massey, Howard & Maize, Montreal, Que.; Alich Fisher, J. J. McKay and F. W. Fraser are on the committee.

ANDOVER, N. B.—Bids are asked, until June 4, for furnishing the material and for building the proposed works; estimated cost, $8,000. F. J. Carter, Secy.

VICTORIA, B. C.—The people will be asked to vote on the question of issuing $15,000 in bonds to complete the works at Beaver Lake.

IRRIGATION.

GREELY, COLO.—The South Platte Land, Reservoir & Irrigation Co., Greely, Colo., will tap the South Platte River by an irrigation canal on each side in Weld county, to run easterly into Morgan county. Connected with the north side canal are to be three reservoirs, the Sanborn reservoir, covering 3,960 acres and holding 70,000 acre-ft.; the Jackson Lake reservoir, covering 2,870 acres and holding 68,000 acre-ft.; the Wild Cat reservoir, holding 10,400 acre-ft. The canal is to run through the first reservoir and above the second and third. The 110,000 acres of land to be reclaimed lie between Hardin station and the east line of Morgan county. The south side or Kiowa and Bijou canal is to cover 50,000 acres of land. It is already completed for a distance of 32½ miles from the head. The Union Pacific Ry. runs along the north bank of the river, and the Burlington & Missouri River Ry. runs through the land on the south side. Baker & Walter, Engrs., Greely.

SEWERAGE.

WINOOSKI, VT.—Bids are asked, until June 6, for constructing the proposed system, as stated in our advertising columns. The system will have 47,485 ft. of 12 to 6-in. pipe, 41,495 cu. yds. of earth excavation, 330,000 brick, 100 cu. yds. of rock excavation, etc. Bids have already been received for the purchase of $28,000 of 10 and 20-year sewer bonds, according to reports. Engr., V. K. Nash, Providence, R. I.; Clk., Chas. H. Stevens; Chn., O. W. Peck.

BOSTON, MASS.—Bids are asked until May 27 for furnishing 50 pier stones for flushing gutters and all of the dimension stones for four flushing gate chambers for the Moon Island reservoir extension. Benj. W. Wells, Supt.

PITTSFIELD, MASS.—A. H. French, Clk., writes us that it is proposed to extend the system for the use of Morningside. The work will be done by city day labor. A. A. Forbes, Engr. Bd. Pub. Wks.

QUINCY, MASS.—Bids are asked until June 2 for building 19,400 ft. of 18 to 8-in. pipe sewers in wards 1, 2 and 3, as stated in our advertising columns. Engr., E. W. Branch.

WEBSTER, MASS. — Lucian A. Taylor, Worcester, Mass., has been awarded the contract for building about 2,100 ft. at about $5,000.

BRISTOL, CONN.—Surveys are being made for two additional beds at the sewage disposal plant at East Bristol.

NORFOLK, CONN.—Arrangements are reported as being made for the proposed system to cost about $6,000. Engr., P. L. Barker, Winsted, Conn.; Chn. Com., Burritt Darrow.

LANCASTER, N. Y.—Bids will be asked at once for making a survey, plans, etc., for the proposed system. After estimates are made the question will be voted upon by the taxpayers. The committee consists of Geo. Bingham, Chn.; P. P. Mook and Philip Guetlich.

MONTCLAIR, N. J.—Bids are asked until May 31 for constructing 3,600 ft. of pipe sewers in three streets. H. Trippett, Town Clk.

ELIZABETH, N. J.—N. Salvato submitted the lowest bid, May 16, for building a sewer in the Lower Road to Newark Bay, at $12,983.

PLAINFIELD, N. J.—Bids are asked until June 6 for constructing about 3,550 ft. of 24 and 12-in. pipe sewers, 13 catchbasins, etc. Jas. T. MacMurray, Cy. Clk.

SEASIDE PARK, N. J.—The Seaside Park Light, Water & Sewer Co. has been incorporated to operate and maintain light, water and sewerage systems at Seaside Park. Capital stock, $100,000, with $10,000 paid in. William J. Bradley, Francis R. Fithian and Harry Reeves, of Camden, are interested.

WARREN, PA.—O. C. Allen, Chn. Com., writes us that the committee on the proposed sewage disposal works for the hospital for the insane has decided not to erect the works at present.

FAIRMONT, W. VA.—J. Harry Meredith, Recdr., writes us that bids for constructing sewers, to cost about $15,000, will be received in June. J. M. Pricket, Cy. Engr.

AKRON, O. — Bids are asked until June 8 for constructing a local sewer in Franklin St. Chas. H. Isbell, Clk.

LEXINGTON, KY.—P. P. O'Neil, Cy. Engr., has prepared plans for a brick sewer to connect with Davidson St.

PONTIAC, MICH.—We are informed that this city is about to begin the construction of lateral sewers. Engr., Wm. J. Fisher.

MADISON, WIS.—McClellan Dodge Cy. Engr., writes us that the city expects at an early date to proceed with the proposed sewage disposal plant to have a capacity of 1,000,000 gallons. The contract for furnishing the precipitation tanks and filters has been let to the American Sanitary Engineering Co. Aldermen Simon, Peyton, Sayles and Trainor are on the committee.

STEVEN'S POINT, WIS.—We are informed that the Iowa Engineering Co., Clinton and Iowa City, Ia., is preparing plans for a separate system, including a pumping station. The plans will be completed in June.

RAWLINS, WYO.—A. F. Thode, ex-trustee, writes us that Jas. I. Cowan, Saratoga, Wyo., is preparing plans and estimates for a system. If they are acceptable to the city only so much will be built each year as the cash on hand will admit of. Bids for the work will probably be asked for during the summer. Address J. C. Gunning or H. Larsen.

ST. LOUIS, MO.—B. H. Colby, Sewer Comr., has recommended the building of a sewer bigger than the one which drains Mill Creek Valley for Haarlem Creek Valley in North St. Louis at $60 a foot; a 15-mile foul water sewer to drain the River des Peres Valley; the Tower Grove storm sewer, partially constructed, should be completed, and a sewer is required for the Oak Hill Valley in the southwestern portion of the city; total estimated cost, about $10,000,000.

EL PASO, TEX.—Geo. W. Wimberly, Cy. Engr. and Sewer Comr., writes us that the question of sewer extensions, while a settled fact, has taken no definite shape as yet. When the bonds are sold steps will be taken at once.

SPOKANE, WASH.—Local papers state that plans for the proposed sewers in the 5th ward will probably soon be adopted.

EMERYVILLE, CAL.—The town engineer is preparing plans and estimates for the proposed system, which it will probably be decided to build this season. J. S. Emery, J. F. Stoer and Wm. Fieldwick compose the committee.

MEXICO, MEX.—Press reports state that the Heman Construction Co., St. Louis, Mo., has been awarded the contract for building the proposed system for this city, to cost about $8,000,000. Roberto Gayol, Cy. Engr. J. C. Heman, 4225 Morgan St., St. Louis, may be addressed.

GARBAGE DISPOSAL—STREET CLEANING

NEWPORT, R. I.—T. P. Crowley has been awarded the contract for building a garbage-carrying scow. It will be 60 ft. long and 20 ft. wide and will have a capacity of 75 tons.

FORT HANCOCK, N. J.—Bids are asked until May 27 for constructing a garbage crematory at Fort Hancock, according to reports. Capt. C. A. Devol, U. S. A., Army Bldg., New York.

TROY, N. Y.—Martin Murray submitted the lowest bid May 20 for disposing of the garbage and street refuse at $6,700 a year. The contract has, however, been let to Z. F. Magill, at $8,400 a year.

UTICA, N. Y.—Daniel L. Mott, 68 Arcade Bldg., Utica, has received the contract for cleaning the streets by hand labor.

HOBOKEN, N. J.—Bids are asked until June 8 for removing the ashes, garbage and street sweepings for the ensuing year. M. V. McDermott, Cy. Clk.

WASHINGTON, D. C.—Bids are asked by the district commissioners until June 20, for cleaning improved alleys. Address, for specifications, the Superintendent of Street and Alley Cleaning, 464 Louisiana Ave. N. W.

NEWPORT NEWS, VA.—The council is considering the question of purchasing tools, carts, etc., for collecting the garbage, instead of letting it by contract. G. W. Bates recently submitted the lowest bid for collecting the garbage, etc., at $2,400 a year.

LORAIN, O.—The board of health is reported as asking for new bids for removing the night soil and garbage.

SOUTH BEND, IND.—The question of a garbage crematory is being considered.

DETROIT, MICH.—It is probable that the garbage contract with the Detroit Sanitary Works will be declared illegal. In our issue of May 5 we gave the bid of this company. F. A. Blades, Controller.

MILWAUKEE, WIS.—Bids are asked by the city comptroller until June 22 for the purchase of $80,000 of garbage disposal bonds, etc.

STREETS AND ROADS.

BURLINGTON, VT.—The advisory board of the street department has recommended to spend $18,000 to improve the streets of the city. An order for 180,000 brick has been awarded to the Eastern Paving Brick Co., Catskill, N. Y.

BOSTON, MASS.—An appropriation of $400,000 has been authorized by the council for street work.

ASHFIELD, MASS.—Bids are asked until May 26 for constructing about 3,500 ft. of state highway. T. C. Mendenhall, Chn. Massachusetts State Highway Comn., Boston.

LOWELL, MASS.—J. W. Bennett, Mayor, informs us that $130,000 has been appropriated for street work this year and that a contract has been awarded to the Boston Paving Co., at $15,500, for constructing about 6,000 sq. yds. of asphalt pavement in Gorham St. Geo. Bowers, Cy. Engr.

PLAINVILLE, CONN.—Bids are asked until June 1 for macadamizing West Main St. for a distance of 1,600 ft. Enos S. Belden, First Selectman.

PUTNAM, CONN.—P. O. Leary, Cy. Clk., informs us that the question of constructing sidewalks, grading and curbing is being considered. Hubert D. Card, Cy. Engr.

ALBANY, N. Y.—Bids are asked until June 6 for constructing sidewalks, etc., and brick paving in Second St., from Quail St. to New York Central Ave. Thos. J. Lanahan, Cy. Clk.; Horace Andrews, Cy. Engr.—The question of brick paving in Partridge St. and in Steamboat Square has been brought before the council.

BINGHAMTON, N. Y.—Bids are asked until June 14 for paving portions of Court St. with brick. Burr W. Mosher, Cy. Clk.

BUFFALO, N. Y.—The board of public works is having plans prepared for paving and resurfacing several streets with asphalt.

BUFFALO, N. Y.—Bids are asked until June 3 for paving in Court St., Division St., Ferry St. and Ashland Ave. R. G. Parsons, Secy. Bd. Pub. Wks.

DOBB'S FERRY, N. Y.—Bids are asked until May 26 for paving in Main St. with brick. Louis F. Murray, Village Clk.

FULTON, N. Y.—O. C. Breed, Cy. Engr., writes us that he has been instructed to prepare plans for curbing, paving gutters with brick and sewering in Second St. for a distance of 2,600 ft. The work may not be done this year.

MEXICO, N. Y.—We are informed that the village street commissioners are having 1,200 lin. ft. of stone road constructed. O. C. Breed, C. E., Fulton.

PHOENIX, N. Y.—Plans have been prepared by O. C. Breed, C. E. Fulton, for 1,200 lin. ft. of curb and 2,500 sq. yds. of stone roadway on Canal St. Bids will soon be asked.

HORNELLSVILLE, N. Y.—Bids are asked until June 6 for about 6,000 sq. yds. of brick paving, as stated in our advertising columns. F. W. Dalrymple, Cy. Engr.

GOSHEN, N. Y.—The county supervisors have resolved to improve a number of highways, and have asked the state engineer to prepare plans.

TROY, N. Y.—Bids are asked until May 31 for surfacing Fifth Ave., from Broadway to Hoosick St., with asphalt. E. Ogden Ross, Secy. Contracting Bd.—A resolution has been adopted to pave Ninth St. with brick, from Hoosick St. to Buckley Place.

MONTCLAIR, N. J.—Ordinances have been passed by the council for macadamizing in eight streets, a total distance of 11,000 ft., and constructing a flagstone sidewalk on Upper Mountain Ave. John H. Parsons, Mayor.

NEWARK, N. J.—Bids are asked until May 26 for furnishing and laying flagstone sidewalks for one year. J. C. Mundy, Gen. Supt., Bd. St. and Water Comrs.

TRENTON, N. J.—Bids are asked until June 3 for macadamizing the White House Road a distance of about 2½ miles. Frank J. Eppele, County Engr.; Josiah Jones, Dir. Bd. Freeholders.

ALLEGHENY, PA.—D. L. Fulton, Supt. Highways, informs us that bids will soon be asked for constructing 38,000 sq. yds. of sheet asphalt; estimated cost, $59,000 and 33,000 sq. yds. of stone block pavement; estimated cost, $49,500.

BEAVER FALLS, PA.—Reports state that this place will construct about 2,500 lin. ft. of brick paving this summer. Harry T. Baker, Cy. Engr.

BRADDOCK, PA.—It is reported that the council is considering the question of issuing from $70,000 to $80,000 in street and water bonds.

NANTICOKE, PA.—Bids are asked until May 31 for brick paving in Main and Market Sts. W. T. Mahon, Pres.; B. F. Griffith, Borough Secy.

UNIONTOWN, PA.—Press reports state that Funkhouser & Coates, New Brighton, have been awarded a $15,000 paving contract.

PITTSBURG, PA.—Bids are asked until May 27 for grading and macadamizing the Beechwood Boulevard. E. M. Bigelow, Dir. Dept. Pub. Wks.

WILKES-BARRE, PA.—Bids are asked until June 1 for curbing, grading and brick paving in Wyoming Ave. J. D. Grimes, Chn. Com.

BALTIMORE, MD.—Bids are asked until May 31 for paving Henry St. L. F. Lewis, Cy. Comr.—An ordinance is before the council to pave Mount Royal Ave. with sheet asphalt and Belgian blocks; estimated cost, $48,000.

HAGERSTOWN, MD.—The council has accepted a proposition to construct three new streets, according to reports. Louis E. McComas and Henry A. McComas may be addressed.

ROCKVILLE, MD.—Engineers are engaged in surveying the Rockville Pike Road from the District line to Rockville. The county commissioners have been authorized by the legislature to expend $25,000 on this improvement.

BRIDGEPORT, W. VA.—Hix & Hoge, Civil Engrs., Wheeling, have been engaged to take charge of the proposed street work, for which $60,000 in bonds have been issued, according to reports.

KINGWOOD, W. VA.—J. S. Brown, Recorder, writes us that a contract has been awarded to the Preston County Blue Stone Co., Rowlesburg, at $5,000, for constructing 6,000 lin. ft. of blue stone sidewalk 5 ft. wide. W. W. Shock, Supt.

WELLSBURG, W. VA.—Reports state that this place may spend about $50,000 on street improvements this year.

NEW ORLEANS, LA.—A petition has been presented for paving portions of Rampart St. with asphalt. P. A. Rabouin, Controller; Walter A. Brashear, Cy. Clk.

TAMPA, FLA.—The board of public works has awarded a contract to S. S. Leonard & Co. for brick paving in Franklin St., 17,990 sq. yds., at $25,906, and in four other streets, 25,578 sq. yds., at $37,874, according to reports.

AKRON, O.—Bids are asked, until June 8, for grading, curbing, guttering and brick paving in portions of six streets. Chas. H. Isbell, Clk. Bd. Cy. Comrs.

ASHLAND, O.—Main St. and Cottage St. will be paved, etc. H. A. Thomas, Mayor; E. B. Westover, Cy. Clk.

ATHENS, O.—Bids are asked, until May 28, for improving State St. and Congress St., two sureties of $200. W. B. Golden, Village Clk.

CANTON, O.—The council has passed ordinances for the improvement of West 10th, East 4th, East 7th Sts. and Meyer, Maple, Woodland and Aultman Aves.

MALTA, O.—Bids will soon be asked for laying about 15,000 sq. yds. of brick pavement. Address Paul R. Murray, C. E., Malta.

MANSFIELD, O.—Bids are asked, until June 18, for improving portions of East Bloom St., Orange St., Newman St. and Flint St. F. M. Remy, Cy. Clk.

MARIETTA, O.—Bids are asked, until June 16, for improving Wooster St., from Front St. to 7th St., and Scammel St. from Front St. to 5th St.; also, until June 17, for improving portions of Putnam, Washington and Montgomery Sts. Carl Becker, Cy. Clk.

MASSILLON, O.—Bids are asked, until June 3, for constructing curb and gutter in Wissmar St. J. C. Haring, Cy. Clk.

SWANTON, O.—Bids are asked, until June 11, for 4,500 sq. yds. of brick paving, as stated in our advertising columns. Engrs., Riggs & Sherman, 613 The Nasby, Toledo; Clk., F. H. Aldrich.

TOLEDO, O.—Bids are asked, until June 13, for stone block paving in Boston St. and Kenilworth Ave. L. P. Harris, Cy. Clk.—A resolution has been passed by the council to construct stone sidewalks in Cherry St. and Horton St. Gustave Abele, Pres. Council.

ZANESVILLE, O.—Bids are asked until June 18 for paving Woodlawn Ave., from Muskingum Ave. to Madison St., with sheet asphalt. Chas. N. Bainter, Cy. Clk.

INDIANAPOLIS, IND.—Bids are asked, until June 14, for constructing about 12 miles of gravel and macadam roads. John B. Malott, County Audr.

MONTICELLO, IND.—W. P. Bushnell, City Engr., writes us that a contract has been awarded to W. W. Hatch, Goshen, Ind., at $28,753, for macadamizing in 11 streets.

WABASH, IND.—Robert P. Woods, Cy. Engr., writes us that a contract for constructing 42,000 sq. ft. of granitoid sidewalk has been awarded to P. Hipskind & Sons, Wabash.

BAY CITY, MICH.—Mapes, Reid & Meagher, Bay City, submitted the lowest bid, May 16, at $17,097, for paving Center Ave with Saginaw brick, from Water St. to Madison Ave.

FLINT, MICH.—Bids are asked, until May 31, for grading, curbing and about 7,032 sq. yds. of brick paving in four streets. A. McFarlan, Chn. Bd. Pub. Wks.

LANSING, MICH.—Jasper C. Davis, Cy. Engr., writes us that bids will soon be asked for about 29,216 sq. yds. of paving in Washington Ave., Turner St. and Franklin St.; estimated cost, about $31,000.

OWOSSO, MICH.—Bids are asked, until June 16, for paving in certain streets, as stated in our advertising columns. Engr., H. E. Riggs, The Nasby, Toledo, O.; Clk., J. L. Ash.

KEWANEE, ILL.—Bids will soon be asked for about 3¼ miles of brick and concrete paving, estimated cost $40,000. J. Guest, Cy. Clk.

PANA, ILL.—Thos. J. Smith, Cy. Clk., informs us that it is proposed to construct five blocks of brick pavement this summer. The contract has not been let.

MADISON, WIS.—McClellan Dodge, Cy. Engr., informs us that the city has under contract and now ordered about $50,000 worth of macadam paving.

WAUSAW, WIS.—Bids are asked, until June 6, for the purchase of a stone crusher and a 12 to 15-ton road roller. Frank Ross, Chn. St. Comrs.

HASTINGS, MINN.—J. P. Sommers, Cy. Clk., informs us that a number of miles of cement sidewalks will be constructed this season. C. B. Lowell, Des. Engr.; E. E. Tuttle is in charge of the work.

MARSHALLTOWN, IA.—About two miles of brick paving will be laid this summer.

KANSAS CITY, KAN.—Bids are asked until May 31 for constructing brick sidewalks in Valley, 9th, 11th, Osage and Elizabeth Sts., and granitoid sidewalks on 6th St. Geo. E. Yeager, Cy. Clk.

KANSAS CITY, MO.—Bids are asked, until May 30, for brick paving on four streets, asphalt in 31st St., and constructing a granitoid sidewalk in Askew Ave. Henry A. Wise, Cy. Engr.

BOZEMAN, MONT.—Bids are asked until June 8 for constructing a road 3⅔ miles long. A. P. McNaughton, County Clk.

SPOKANE, WASH.—The council is considering a proposition to pave Riverside Ave., at an estimated cost of $59,763.

STOCKTON, CAL.—Bids are asked, until June 7, for grading and graveling North St. Otto Grunsky, Clk. Bd. County Supervisors.

MANUFACTURING PLANTS.

LAWRENCE, MASS.—Plans have been prepared, according to reports, for a brick, iron and stone brewing plant for Carl Schlosstein, of this place, to cost about $25,000. Archs., Hettinger & Co., 1140 Columbus Ave., Roxbury, Boston.

TORRINGTON, CONN.—We are informed that the Excelsior Needle Co. will soon erect a new one-story brick factory building at Torrington. Contractors, Hotchkiss Bros. & Co., of Torrington; Arch., Theodore B. Peck, Waterbury, Conn.

MOUNT UPTON, N. Y.—Leroy Willey, Mount Upton, writes us that he desires to purchase a good second-hand 2-HP. gasoline engine for his new machine shop and foundry, which are now about completed. A 15-HP. engine and a 40-HP. boiler will also be installed.

NEW YORK, N. Y.—It is reported that the Hammond Typewriter Co., 405 East 62d St., contemplates the erection of a new factory building, 100 × 192 ft., at 69th and Exterior Sts.

WEST TROY, N. Y.—James Dollard has been awarded the contract for the mason work on the new 5-story brick factory for William Barker, of Troy, at Watervliet. The carpentry contract went to Edelman & Richardson. The building will be 75 × 110 ft., and will have a separate boiler and engine house attached, 20 × 60 ft.; estimated cost, $30,000. Arch., Edward W. Loth, of Troy.

CONNELLSVILLE, PA.—The plant of the Slaymaker-Barry Co., manufacturers of locks and builders' hardware, was burned, May 21, causing a reported loss of $80,000; fully insured.

HAZLETON, PA.—Reports state that the contract for erecting a new brick silk weaving mill, 60 × 200 ft., has been let to P. F. Boyle, of Hazleton, at $13,857.

PHOENIXVILLE, PA.—The Flynt Building & Construction Co., Palmer, Mass., informs us that the contract will be let about June 1 for the construction of a 5-story brick and iron silk ribbon factory building to be erected at Phoenixville for Johnson, Cowdin & Co., 121 Spring St., New York, after plans prepared by the construction company; estimated cost, $60,000.

MADISONVILLE, KY.—E. C. Anderson & Co., of Hopkinsville, Ky., are stated to have been awarded the contract for the erection of a 10-ton ice plant at this place for the Spring Lake Ice Co.; the Fred W. Wolf Co., of Chicago, will furnish the necessary machinery.

EAST LIVERPOOL, O.—The plant of the Potters' Mining & Milling Co., in the East End, was damaged by fire, May 16, causing a reported loss of $75,000; insurance, $43,000.

ALLIANCE, O.—It is reported that Davis & Caldwell, of Youngstown, O., have been awarded the contract for the placing of new asphalt floors in the plant of the Morgan Engineering Co.

SIOUX CITY, IA.—Reports state that plans are being prepared for a new brewing plant to be erected in this city at a cost of $150,000. Arch., The Wilhelm Greisser Engineering Co., Chicago, Ill.

MURRAY, UTAH.—Plans have been prepared by Samuel Newhouse, of Denver, Colo., according to reports, for the erection of a steel and iron smelter at Murray, 10 miles south of Salt Lake. It is also expected to construct 20 miles of railway up Bingham Canon to the Highland Boy mine. Work on the smelter was to begin this month.

MISCELLANEOUS CONTRACTS.

BONDS.—Berea, O.—Bids are asked until June 20 for the purchase of $2,700 in bonds. E. S. Loomis, Cy. Clk.

DOCK.—Escanaba, Mich.—The question of constructing a dock on the south shore for coal, etc., is being talked of.

TELEPHONE SYSTEM.—Evansville, Ind.—The Detroit Telephone Co. has applied for a franchise to operate in this place.

FIRE BOAT.—Chicago, Ill.—Bids are asked, until May 28, for the construction of a steel fire boat. D. J. Swenie, Fire Marshal.

GUN FORGINGS.—Washington, D. C.—Bids are asked until May 31 for furnishing eight-inch gun forgings. John D. Long, Secy. Navy Dept.

FIRE WATER TOWER.—New York, N. Y.—Bids are asked until June 8 for furnishing one "Hale" water tower. John J. Scannell, Comr. Fire Dept.

TELEPHONE SYSTEM.—Williamsport, Md.—A telephone line will be constructed between this place and Fairplay by the Maryland Telephone Co.

SMOKESTACK.—East Dubuque, Ill.—Bids are asked until June 7 for constructing a brick smokestack at the city water-works. Geo. B. Rewell, Cy. Clk.

DRAINS.—Chicago, Ill.—Bids are asked, until May 27, for constructing 6-in. drains in five streets. J. S. Sheahan, Secy. Bd. Local Improvements.

CONDUITS.—Syracuse, N. Y.—Bids are asked, until June 2, for constructing two conduits at the State Institute for Feeble Minded Children. Dr. Carson, Supt.

TELEPHONE SYSTEM.—Monticello, N. Y.—Reports state that a franchise has been granted to the Hudson River Telephone Co. to operate in this place.

FIRE HOSE.—Chicago, Ill.—Bids are asked until June 1 for furnishing about 15,000 ft. of 2½-in. rubber lined cotton fire hose. D. J. Swenie, Fire Marshal.

TELEPHONE LINE.—Tiffin, O.—Reports state that the Home Telephone Co., Tiffin, will soon extend its lines to a number of towns throughout Seneca county.

CABLES, TELEPHONES, ETC.—Buffalo, N. Y.—Bids are asked, until June 1, for furnishing the police board with telephones, underground cables, etc. Chas. O. Hertle, Clk.

IRON FENCE. — Northampton, Mass. — Bids are asked until June 14 for constructing about 650 lin. ft. of iron fence around the court house. E. E. Davis, Chn. County Comrs.

TELEPHONE SYSTEM.—Kenton, O.—C. Legitt, Gen. Mgr., Home Telephone Co., Plain City, is reported as making arrangements to construct a telephone system in this place.

WHARF.—Narragansett Pier, R. I.—A contract has been let by the Providence, Fall River & Newport Steamboat Co. for the construction of a wharf 1,100 ft. long. Shedd & Carl, Des Engrs., Providence.

MASONRY WORK.—Jersey City, N. J.—Bids are asked until June 2 for constructing the masonry work in repairing the parapet wall on the Paterson Plank Road. Edward W. Woolley, Clk. Bd. Freeholders.

EARTHWORK.—New Orleans, La.—Bids are asked by the U. S. engineer at New Orleans, until June 9, for constructing about 1,360,500 cu. yds. of earthwork on the levee line of the fourth Mississippi levee district.

PIER, DREDGING, ETC.—Cleveland, O.—Bids are asked until June 23 for constructing part of a pier, dredging and completing the last breakwater, at the Cleveland Harbor, as stated in our advertising columns. Col. J. A. Smith, U. S. Engr.

BY-PASS.—Chicago, Ill.—Bids are asked until June 8 for the auxiliary work on the by-pass along the Chicago River, as stated in our advertising columns. (Postponement from June 1.) Jos. Reddick, Clk. Bd. Sanitary District Trustees, The Rookery.

CANAL.—Pueblo, Colo.—The Shutt Improvement Co., Pueblo, has been awarded a contract at $100,000 for constructing a canal from the Twin Lakes reservoir to the Arkansas River, 1,800 ft. long and 150 ft. wide, which will cover 50,000 acre-ft. The head gate will be of steel

HARBOR WORK.—Evanston, Ill.—Reports state that the Chicago Yacht Club and the Evanston Boat Club are considering the advisability of expending about $150,000 in constructing a breakwater and dredging the harbor at Evanston. Capt. Chas. W. Meyrick, Evanston, may be addressed.

DOCK AND SHIP.—Waukegan, Ill.—We are informed that the Elgin, Joliet & Eastern Ry. Co. is constructing a dock 2,000 ft. long, and a slip requiring about 100,000 cu. yds. of sand excavation. The contract has been awarded to the Crouch Construction Co., 515 First National Bank Bldg., Chicago.

McGraw, $28,653; H. W. Phillips, $23,408; W. H. Ryan & Co., $22,879; John Cavanagh & Co., $29,489; W. H. Keyes & Co., $22,246.

TELEPHONE PLANT.—Indianapolis, Ind. — Bids are asked until June 6 for the construction of a complete telephone plant, according to the following estimates: 250,000 ft. of conduit, 200,000 ft. of lead-incased cable, 2,000 miles of copper wire and 3,000 telephones. H. B. Gates, Secy., New Telephone Co.

CONTRACT PRICES.

BRICK PAVING.—Hornellsville, N. Y.—F. W. Dalrymple, Cy. Engr., writes us that the following bids were received May 9 for brick paving, as advertised in Engineering News; the foundation consists of 6 ins. of concrete; brick on sand is that which is laid between the street-car tracks:

Quantities.	Jas. McCloud & Co., Columbus, O.	Sullivan & Graham, Columbus, O.	Eugene Fee, Olean, N. Y.	Jamestown (N. Y.) Construct'n Co.
Excavation ...2,400 cu. yds.	$0.27	$0.25	$0.25	$0.20
Brick on concte6,000 sq. yds.	1.37	1.35	1.40	1.55
On sand ..1,000 " "	1.37	1.25	1.30	1.20
Curb: straight.3,980 lin. ft..	.37	.40	.36	.35
Circular .. 235 " "	.65	.65	.60	.45
4-in. tile drain3,000 " "	.10	.05	.08	.05
Total	$12,246	$11,920	$12,192	$11,381

LAYING WATER PIPE.—Hallowell, Me.—We are informed that the following bids were received May 15 for laying water pipe, as advertised in Engineering News; contract awarded C. N. Taylor; F. E. Beane, Clk. Water Comrs.:

Bids Received at Hallowell, Me., May 15, for Laying Water Pipe.

Bidder.	Pipe. 6-in., 18,000 ft.	Pipe. 8-in., 6,000 ft.	Pipe. 12-in., 1,500 ft.	Hydrants, 40, each.	Gutters, 35, each.	Rock excavation, a cu. yd.
George E. Macomber, Augusta, Me.	$0.23	$0.25	$0.33	.....	.....	$2.50
Daniel Dunton, Gardiner, Me.	.23	.23	.23	.....	.....	3.00
John Walker, Newmarket, N. H.	.20	.23	.23	$1.00	$1.00	4.00
L. A. Taylor, Boston, Mass.	.17	.21	.20	1.50	.75	3.50
Mike Russo, Boston, Mass.	.15½	.18	.25	2.50	.75	2.75
Moore & Co., Boston, Mass.	.16	.18	.20	2.00	1.00	4.00
J. H. McKnight, Hyde Park, Mass.	.14	.17½	.24	2.50	2.00	3.40
McCusker Bros., Waltham, Mass.	.14⅞	.15⅞	.17½	2.00	1.50	3.50
C. N. Taylor, Natick, Mass.	.14	.17	.18	1.00	.80	4.00

LAYING WATER PIPE.—Boston, Mass.—We are informed that the following bids were received by the Metropolitan Water Board May 12 for laying water pipe in a portion of section 24; the bid of E. W. Everson & Co. was accepted:

Quantities.		S. W. Frescoln, Reading, Pa., $4,048.	E. W. Everson & Co., Boston, $4,944.	C. E. Trumbull & Co., Boston, $6,657.	Moore & Co., Boston, $6,812.	J. Cavanagh, Boston, $12,070.
Lay'g 20-in. c.i. pipe	840 lin. ft..	$0.73	$1.20	$1.00	$1.50	$3.00
20-in. c. i. pipe*.	310 " "	9.50	11.00	17.20	15.25	25.00
6-in. fr blw-offs	140 " "	.50	.50	.25	.50	2.00
Excavation:						
Rock, abv grade	10 cu. yds.	3.00	4.00	10.00	15.00	50.00
Rock, blw "	10 " "	5.00	5.00	5.00	15.00	50.00
Earth " "	20 " "	1.00	2.00	1.00	2.00	5.00
Setting air valves..	2 each...	5.00	3.00	5.00	2.00	10.00
Chambers:						
20-in. valves.....	2 " ...	55.00	50.00	35.00	50.00	50.00
For valves†	4 " ...	35.00	40.00	35.00	40.00	50.00
Concrete masonry..	10 cu. yds.	6.00	6.00	6.00	15.00	10.00

*Across Charles River, between Sta. 173 + 45 and Sta. 176 + 55. †Less than 20-ins. diameter, and air valves.

SEWERS.—Somerville, Mass.—We are informed that the following bids were received May 10 for constructing storm water sewers in the eastern district:

Bids Received at Somerville, Mass., May 10, for Constructing Storm Water Sewers.

Quantities.		C. E. Trumbull & Co., Boston.	T. H. Bryne, Hyde Park.	Richard Falvey, Somerville.	J. P. O'Connell, Dorchester.	H. A. Hanscom & Co., West Medford.	Timothy F. Crimmings, Somerville.	Maurice Buttimer, Somerville.
Earth excavation: 56-in. sewer....	250 lin. ft..	$3.94	$3.20	$2.75	$3.00	$3.00	$3.50	$4.50
" " 66-in. " 1,370	" "	4.50	2.45	3.25	2.75	3.55	3.75	4.75
" " 48-in. " 500	" "	2.82	1.65	3.25	2.15	2.66	2.90	5.00
Rock excavation	40 cu. yds.	3.50	3.50	4.00	4.00	3.00	3.50	3.50
4-in. to 10-in. underdrain.....	2,000 lin. ft..	.10	.25	.15	.20	.15	.25	.30
Portland cement concrete (6-3-1)....	880 cu. yds.	4.34	6.25	6.00	6.00	5.90	6.25	5.20
Rosendale cement concrete (5-2-1)..	100 " "	3.65	5.00	4.80	5.00	5.00	5.00	4.50
Portland brick masonry	250 " "	9.21	14.00	12.50	14.50	13.50	14.00	12.50
Rosendale brick masonry.....	500 " "	8.09	12.00	11.00	12.50	12.00	13.00	10.50
Total		$10,432	$21,122	$21,610	$21,808	$22,431	$24,103	$24,274

MORTAR BATTERY AND WHARF.—Boston, Mass.—The following bids were received, May 14, for constructing a mortar battery and wharf at Peddocks Island. Lieut.-Col. S. M. Mansfield, U. S. Engr., Boston:

	Mortar battery.	Wharf.
C. H. Wellington, Oxford, Mass..... J. J. McCarthy, Franklin, Mass..... Benjamin M. Crane, Boston, Mass..	$72,651	$16,872
Yates & Triest, New York, N. Y....	54,441	9,764
Frank Pidgeon, New York, N. Y.....	99,164	13,070
Wm. H. Keyes, Boston, Mass.....	74,793	22,291
George W. Judd, Boston, Mass.....	62,238	11,697
Grattan & Jennings, New York, N.Y.	91,840	20,395
Michael J. Dady, New York, N. Y..	62,171	10,181
McGuire & Hall, New York, N. Y...	69,368	9,129
John Cavanagh & Co., Boston, Mass.	63,094	13,983
Woodbury & Leighton, Boston, Mass.	58,860	12,421
J. W. Hoffman & Co., Phila., Pa....	63,396	16,380
Wm. L. Miller & Co., Boston, Mass.. H. D. Bush, Springfield, Mass.....	81,105	10,040
Samuel W. Frescoln, Reading, Pa...	51,154	16,025
Jacob M. Ellis, Woburn, Mass..... John W. Busnell, Winchester, Mass.	72,250	13,835

SEA WALL.—Boston, Mass.—The following bids were received, May 20, for constructing a sea wall on Congress St. Wm. Jackson, Cy. Engr.: W. H. Ellis & Co., $21,900; W. L. Miller, $20,945; D. F. O'Connell, $21,000; J. M.

BRICK PAVING.—Albany, N. Y.—We are informed that the following bids were received by the board of contract May 16 for vitrified brick paving; contract awarded T. Henry Dumary:

Quantities.		Mulderry Bros.	T. H. Dumary.	Edw. F. Dillon.
Brick	6,600 sq. yds.	$1.68	$1.65	$1.75
Curb:				
Granite, str'ght	3,400 lin. ft..	.25	.25	.30
Circular	305 " "	.50	.25	.30
Relaying pavement:				
On sand	180 cu. yds.	.45	.40	.10
On concrete .	5 " "	1.25	1.50	1.50
Crbstne on sand	200 lin. ft..	.15	.20	.05
On concrete .	100 " "	.25	.20	.20
Sidewalks: relyg	28,000 sq. ft...	.03	.03	.025
New vit. brick.	19,000 " "	.08	.09	.08
4-in. flagging.	3,800 " "	.14	.13	.14
Rec'v'g basins ..	10 each...	65.00	60.00	55.00
Days to complete at $5.....		25	10	35
Total		$15,900	$15,650	$16,194

SEWER PIPE.—North Adams, Mass.—We are informed that the contract for furnishing sewer pipe has been let to A. W. Hunter, North Adams, at 80% off list price and 2% additional for cash. This is for the best granite vitrified pipe made by Knowles, Taylor, Anderson & Co. John H. Emigh, Comr. Pub. Wks.

LAYING WATER PIPE.—Boston, Mass.—We are informed that the Metropolitan Water Board received the following bids May 12 for laying water pipe for the Rosemary siphon; Asst. Engr., John M. Ferguson:

Bidder	Laying 61-in. c.i. pipe, 1,790 lin. ft.	Laying 16-in. c.i. flange pipe, 36 lin. ft.	Brick masonry, 5 cu. yds.	Concrete masonry, 40 cu. yds.	Earth excavat'n, below grade, 30 cu. yds.	Total.
S. W. Frescoln[1] ...	$2.26	$1.00	$12.00	$5.00	$0.75	$4,354
A. L. Norton & Co.[2]	2.49	2.00	15.00	5.00	1.00	4,814
Bruno & Salomone[3]	2.63	.75	15.00	5.25	.65	5,032
C.E.Trumbull &Co[4]	2.75	1.50	15.00	6 00	1.00	5,307
H.A.Hanscom &Co[5]	3.70	1.00	13.00	5.50	1.00	6,964
C. H. Eglee & Co[4].	4.75	4.75	15.00	6.00	1.00	8,971
J. Cavanagh & Co.[4]	5.20	3.00	15.00	9.00	1.00	9,851

[1]Reading, Pa. [2]Syracuse, N. Y. [3]East Boston, Mass. [4]Boston, Mass. [5]West Medford, Mass.

SEWER PIPE.—Quincy, Mass.—We are informed that the following bids were received May 12 for furnishing 50,000 ft. of sewer pipe, etc., as advertised in Engineering News; F. L. Jones, Secy. Comrs.; the discounts are off list prices:

Bidder.	Standard.	Dup. sockets.	Double strngth	Size of pipe, ins.
Berry & Ferguson, Boston[1]...	82½%	79¾%	78¾%	12 to 18
			75¾%	20 " 24
H. Wales Lines Co. Meriden,	82.15%	80.15%	79.15%	12 " 18
			77.15%	20 " 24
A.J. Richards & Son, Quincy[2].	82%	78%	73%	.....
Waldo Bros., Boston[3].....	82%	78%	73%	.....
Portland Stone Wks., Boston[3].	80¼%	76%	70%	.....
F. H. Crane & Sons, Quincy.	79%	78½%	76%	.....
Geo. D. Goodrich, Boston	79%	78½%	76%	.....
Fiske, Holmes & Co., Boston[1].	78.8%	78.8%	77.5%	15 to 18
			74½%	20 " 24

Pipe manufacturers: [1]National Sewer Pipe Co.; [2]Buckeye Sewer Pipe Co.; [3]Portland Stone-Ware Co. Contract let to Richards & Son for standard pipe.

SEWERS.—Quincy, Mass.—We are informed that the following bids were received by the commissioners May 12 for constructing pipe sewers in Section 4 of the sewerage system, as advertised in Engineering News; Engr., E. W. Branch; Chn., H. T. Whitman:

Bids Received at Quincy, Mass., May 12, for Constructing Pipe Sewers in Section 4.

Quantities.		P. & F. E. McCarthy, Boston.	J. H. McKnight, Quincy.	J. Cavanagh & Co., Boston.	C. E. Trumbull & Co., Boston.	D. E. Lynch & Co., Dorchester.	William Cashman, Quincy.	T. H. & G. M. Bryne, *Hyde Park.	John Donovan, So'boro.	Long & Little, Leominster.	H. A. Hanscom & Co., West Medford.	Wm. J. Fitzgerald, Dorchester.	A. W. Bryne Const'n Co., Boston.	John Sheehan & Co., Lynn.	Sam'l W. Fresco ln, Reading, Pa.	T. H. Connolly, Boston.
Excavation	Earth, 0 to 8 ft..... 12,200 cu. yds.	$0.82	$0.47	$0.45	$0.45	$0.50	$0.56	$0.45	$0.40	$0.40	$0.38	$0.40	$0.45	$0.40	$0.30	$0.30
	" 8 " 14 " ..... 2,350 " "	2.03	.75	1.20	1.00	1.00	1.00	.60	.70	.65	.79	.80	.60	.60	1.14	.50
	" 14 " 20 " ..... 1,070 " "	1.95	1.50	1.70	1.50	1.50	1.00	.90	1.25	1.25	2.00	1.60	1.00	.90	2.04	2.00
	" below 20 " ..... 25 " "	.85	2.50	2.00	3.00	2.00	2.00	1.50	1.50	2.00	2.00	1.50	2.00	2.00	2.50	1.00
	Rock, 0 to 8 " ..... 200 " "	3.00	4.40	3.50	3.00	3.50	1.00	4.00	4.00	4.00	2.00	3.00	.50	4.10	3.00	3.00
	" 8 " 14 " ..... 50 " "	4.00	5.50	6.00	6.00	5.00	1.00	4.00	6.00	4.00	2.00	3.80	.50	4.00	4.00	5.00
	" below 14 " ..... 25 " "	4.00	7.00	6.00	6.00	8.00	1.00	4.00	6.00	6.00	6.00	4.50	.50	4.00	5.00	5.00
	Earth, in tunnel ..... 70 lin. ft..	3.25	6.00	3.00	6.00	4.00	4.00	6.00	10.00	5.00	10.00	3.00	5.00	8.00	4.00	5.00
	Rock, " " ..... 10 " "	4.00	12.00	20.00	6.00	10.00	1.00	6.00	.01	5.00	10.00	5.50	.50	1.00	5.00	1.00
Brick masonry	200 cu. yds.	6.50	5.50	6.00	4.50	4.50	5.00	4.75	6.00	5.00	4.00	4.75	5.00	5.50	3.75	3.00
Concrete masonry	200 " "	4.00	5.50	6.00	4.00	3.00	4.00	4.00	2.50	3.25	4.00	4.50	5.00	4.30	2.50	3.00
Laying	8-in. sewer pipe ..... 11,600 lin. ft..	.06	.15	.05	.10	.05	.10	.10	.05	.09	.09	.06	.10	.08	.04	.10
	12-in. " " ..... 770 " "	.06	.25	.10	.10	.09	.12	.10	.10	.12	.12	.10	.15	.10	.06	.10
	20-in. " " ..... 1,850 " "	.10	.50	.10	.20	.20	.20	.15	.12	.25	.18	.15	.20	.15	.10	.10
	Underdrain ..... 5,000 " "	.06	.22	.15	.20	.20	.15	.25	.35	.25	.11	.18	.20	.15	.05	.15
	Chimneys ..... 600 vert. ft.	.06	.30	.15	.10	.10	.10	.10	.05	.10	.10	.04	.20	.15	.05	.10
Lumber in place and secured.....	10 M. ft...	30.00	30.00	24.00	20.00	30.00	30.00	30.00	28.00	30.00	35.00	25.00	15.00	20.00	20.00	20.00
Block paving around manholes.....	120 sq. yds.	.06	1.50	3.00	1.25	.50	.70	2.00	.25	1.50	.75	.60	3.00	1.00	.25	.40
Total		$21,785	$17,852	$16,471	$15,767	$15,574	$15,483	$14,595	$14,519	$14,384	$14,254	$13,824	$13,788	$13,396	$12,295	$12,015

WATER PIPE.—New London, Conn.—We are informed that the following bids were received May 20 for furnishing water pipe and special castings, as advertised in Engineering News; Supt. and Engr., W. H. Richards:

Bidder.	C.i. pipe, 675.5 tons.	Specials, 8 tons.	Total.
Chattanooga Fdry & Pipe Works..	$17.20	$40.00	$11,933
Warren Foundry & Machine Co...	16.20	35.00	11,223
Fox & Engel	17.20	36.00	11,907
M. J. Drummond & Co.	16.50	35.00	11,423
R. D. Wood & Co.	16.25	35.00	11,357

GRANOLITHIC WALK.—Pittsburg, Pa.—We are informed that the Peabody & Filbert Co. has been awarded the contract for laying granolithic walks at 14½ cts. a sq. yd.

BRICK PAVING.—Cincinnati, O.—We are informed that Wm. Fogerty, 2550 Burnet Ave., has been awarded the following contract for paving in Friendship St.: Broken stone, 5 cu. yds., 1 ct.; concrete, 110 cu. yds., $2.20; curbs, 642 lin. ft., 87 cts.; curbs, circular, 17 lin. ft., $1.50; grading, 240 cu. yds., 1 ct.; limestone, 5 sq. yds., 1 ct.; brick, 650 sq. yds., 85 cts.; rebowldering, 15 sq yds., 1 ct.; resetting curbs, 20 lin. ft., 1 ct.; rolling, 650 sq. yds., 1 ct.; manholes adjusted, 4, 50 cts.; catchbasins adjusted, 1, $1.00; total, $1,391.

SEWER PIPE.—Nashua, N. H.—The contract for furnishing sewer pipe was let to O. B. Tilton at 82½% off list price.

SEWER BRICK.—Minneapolis, Minn.—The following contracts were let, May 13, for furnishing 1,000,000 sewer brick: Swan G. Johnson, 350,000 sand mold, $7.47; Menomonee Hydraulic Pressed Brick Co., 100,000 sand mold, $6.95 a M.; 250,000 sand mold, $7.24 a M.; Wisconsin Pressed Brick Co., 100,000 sand mold, $6.85 a M.; 200,000 sand mold, $7.22 a M.; 200,000 feather edge, $9.70 a M.

INDUSTRIAL NOTES.

MR. M. WALKER, Fenton, Mich., has recently completed the laying of a 1,200-ft. intake into the lake for the water-works at St. Clair, Mich.

THE BUFFALO PITTS CO., Buffalo, N. Y., has sold a 10-ton steam road roller to Exeter, N. H., and one of the same weight to Woodside, N. H.

H. B. COHO & CO., manufacturers of electric lighting apparatus and contractors for power plants, etc., have removed their New York offices from the St. Paul Bldg., 220 Broadway, to 30 Cortlandt St.

THE WESTINGHOUSE ELECTRIC & MFG. CO., Pittsburg, Pa., has an order for 75 double equipments of 35-HP. electric motors for the Cleveland Electric St. Ry., Cleveland, O., according to reports.

THE EASTERN PAVING BRICK CO., Catskill, N. Y., has just received a contract for about 180,000 paving brick for paving a portion of Church St., Burlington, Vt. This is one of the principal business streets of the city.

THE RAILWAY CYCLE MFG. CO., Hagerstown, Ind., reports that orders for its cycle and inspection cars have been rapidly increasing, and that it has recently received an order by cable for six of these cars to be shipped immediately to Germany.

RINALD BROS., 32 North 6th St., Philadelphia, Pa., manufacturers of Bessemer paint, have added to their business the manufacture of Rinald Bros.' Red Mineral Paint. It is made of pure kettle-boiled linseed oil and a pigment, which they claim is superior to red lead, iron oxide, asphaltum or graphite.

BROWN & FLEMING, 129 Broad St., New York, contractors for crushed stone, with works at Verplancks, N. Y., have decided to dissolve partnership, and the Supreme Court has been asked to appoint a receiver. The firm is said to be solvent and to have outstanding contracts for crushed stone aggregating $250,000.

MR. L. WILSON, 53 Dearborn St., Chicago, artesian well and water supply contractor, has a contract from the Bettendorf Metal Wheel Co., Davenport, Ia., to sink an artesian well to a depth of about 1,100 ft.; also a contract to sink an artesian well to a depth of about 1,600 ft. for the town of Dolton's Station, Ill.

THE SCHENECTADY LOCOMOTIVE WORKS, Schenectady, N. Y., has received orders, according to report, for 38 locomotives for Japan, of which 26 are of the mogul type, weighing 82,000 lbs. each, for the Nippon Ry., and the remainder are of the consolidation type, for the Kiu-Siu Ry., and will weight 94,000 lbs. each.

THE UNION AKRON CEMENT CO., Buffalo, N. Y., has recently received contracts for 3,000 bbls. Akron cement from the Alcatrax Paving Co., for paving in Philadelphia, and for 15,000 bbls. from E. D. Smith & Co., for constructing the Philadelphia & Reading Ry. subway in Philadelphia, and for a large sewer at Cleveland, O.

OKURA & CO., of Japan, importers, wish to secure catalogues of manufacturers and dealers in iron, steel, machinery and railway appliances. Mail should be sent at once to Mr. C. Kadono, the representative of the above firm, who leaves for London June 1, but whose present address is, care of C. v. Pustau & Co., 134 Pearl St., New York.

THE VULCAN IRON WORKS CO., Toledo, O., has contracts for three 70-ton "Giant" steam shovels of all-steel construction, the rated capacity of each being 4,500 tons of iron ore in 10 hours. Mr. Alexander Backus, Pres., advises our representative that calls for prices on their steam shovels and other machinery have been increasing rapidly.

THE BERLIN IRON BRIDGE CO., East Berlin, Conn., is erecting a steel roof for the new building of the Waterville Cutlery Co., Waterville, Conn. The trusses are of steel and the covering is of corrugated iron, lined with patent anti-condensation fireproof lining. The building is 21 x 100 ft., and will be used as a forge shop and for the boilers and engines.

THE STILWELL-BIERCE & SMITH-VAILE CO., Dayton, O., has the contract, according to report, for the full machinery equipment of the new mill of the American Glucose Co., at Waukegan, Ill., including hydraulic presses, pumps, etc. The contract price is said to be $50,000. The company is also reported to have a contract amounting to over $200,000 for water-wheels and machinery for installing an electric railway in Jamaica.

THE RUSSEL WHEEL & FOUNDRY CO., Detroit, Mich., is busy in its car department, and Mr. John R. Russel advises our representative that it has shipped since Jan. 1 more than 400 logging cars of from 30,000 to 50,000 lbs. capacity to various states and territories. A large number of contractors' cars, of from 1½ to 5 yds. capacity, have been built, some being equipped with air-brakes, M. C. B. couplers, steel trucks, etc.

THE AMERICAN PIPE & FOUNDRY CO. has been incorporated in West Virginia, with $2,000,000 capital, by the consolidation, according to press reports, of the following companies: Howard-Harrison Iron Co., Bessemer, Ala.; Southern Pipe Co., Anniston, Ala.; South Pittsburg Pipe Works, South Pittsburg, Tenn., and the Chattanooga Foundry & Pipe Works, Chattanooga, Tenn., and Bridgeport, Ala. The officers of the new company are: Pres., F. C. Miller, Anniston; Vice-Pres., David Giles, Chattanooga; 2d Vice-Pres. and Gen. Mgr., J. K. Dimmick, Anniston; Gen. Sales Agent, E. B. Thomason, Chattanooga; Treas., M. Llewellyn, Chattanooga, and Secy., J. R. Rice, South Pittsburg. It is stated that the new company will have headquarters at Chattanooga.

THE BELKNAP MOTOR CO., Portland, Me., has received an order, through its New York representative, the Brewster Engineering Co., 27 Thames St., for seven Chapman voltage regulators for the Mount Morris Electrical Co., New York. The company is also installing freight elevators for the Portland Packing Co. and for the E. D. Pettengell Pickle Works, both of Portland. Among other orders on hand are the following: One 7½-HP. motor and one 10-HP. motor for the Brewster Engineering Co., one 75-light dynamo and two 1½-HP. motors for Caldwell & Co., Baltimore, Md.; one 200-light dynamo for the Nashua (N. H.) Machine Co.; one 2-HP. motor, one ½-HP. motor and one 20-HP. motor for the L. I. Fletcher Co., Boston; two 15-HP. motors for Morse, Williams & Co., Philadelphia; and one 15-HP. motor for the town of Waterville, Me.

THE CLAYTON AIR COMPRESSOR WORKS, Havemeyer Bldg., New York, reports that during the months of February, March and April of this year, 10 air compressors for moving and elevating acid and chemical solu- chipping and calking tools, air hoists, etc.; nine air com- pressors for moving and elevating acid and chemical solu- tions; four air lift pumping plants were installed and placed in operation; three air compressors were furnished to rubber works for removing hose from mandrels, testing hose and inflating tires; one compressor was supplied for the pneumatic transmission of messages; two for oil burning plants; three for racking off beer in breweries; one for spraying brick in the process of manufacture, and six for unusual applications of compressed air power. Four were also exported to Europe for operating pneumatic shop plants. Among the orders of special interest included in the above summary may be mentioned the plant installed at the navy yard, Brooklyn, N. Y., for supplying pneumatic drills, paint machines and hammers, and one furnished to the Yarrow Ship Yard, London, for operating pneumatic tools. Another installation of interest is the compressor at the Dun Bldg., New York, which supplies compressed air dusting nozzles for cleaning the iron grill work of the elevator shafts. Among the orders on hand is a large compressor for the Bath Iron Works, Bath, Me., to operate pneumatic tools.

NEW COMPANIES.—Union Cut Stone Contracting Co., Newark, N. J.; $50,000, commencing with $1,000; to deal in all kinds of cut stone; John F. Monahan and William Telfer, of Newark; Daniel McCallum, Harrison, N. J.

Columbia Stymite Co., Jersey City, N. J., $250,000, commencing with $10,000; to manufacture clay brick, tiles, etc.; Wm. P. Stymus, Jr., 375 Lexington Ave., New York; Cyrus Edson, 20 West 48th St., Wm. H. Russell and Chas. S. Boyd, all of New York.

Mason & Hoge Co., Charleston, W. Va.; $100,000, commencing with $50; to construct railways, water-works, locks, dams, etc.; Chas. E. Hoge and W. F. Dandridge, of Frankfort, Ky.; A. L. Ruffner, W. Mollohan and Geo. W. McClintick, of Charleston.

Hogan Electric Co., Charleston, W. Va.; $100,000, commencing with $50; to manufacture and deal in electrical machinery, etc.; Alph. Britonham, E. A. Bolkin and A. G. Vickers, Charleston; J. E. Laughlin and G. W. Arbogast, Clay C. H., W. Va.

New York Building Co., Jersey City, N. J.; $250,000, commencing with $150,100; to deal in real estate and to build houses, docks, etc.; Robert H. Jones, 401 West 147th St.; Robert B. Moorhead, 64 5th Ave., New York; E. A. McDougall, 141 Overlook St., Mount Vernon, N. Y.; Frank M. Case, Jr., 15 Exchange Pl., Jersey City.

American Promotion Co., Jersey City, N. J.; $1,000,000, commencing with $1,000; to construct and operate canals, tramways, etc.; Wm. C. Dornin, New York; A. Van Dyke, Brooklyn, N. Y.; John J. Treacy, Jersey City.

Clark Automatic Scale Co., New York; $100,000, commencing with $50; to manufacture, sell and operate scales for weighing purposes; H. H. Graff, Ernest Atkinson, Charles Engel and John French, New York; Thomas Holden, Jr., White Plains, N. Y.

Hub Motor Wagon Co., Boston, Mass.; $1,000,000, commencing with $25; to manufacture and repair motor wagons, bicycles, etc.; John Beatey, Hyde Park, Mass.; G. R. Elliott, Wm. E. Barrows and J. Fred Beatey, all of Boston; A. B. Upham, Malden, Mass.

General Electric Tramway Co., Jersey City, N. J.; $500,000, with all paid in; to manufacture and sell electric clutches and couplers for use on tramways, etc.; Wm. F. Netling, Daniel Beacon and Arthur J. Raymond, all of New York.

Universal Railway Supply Co., New York; $100,000, commencing with $100; to manufacture and sell all kinds of railway supplies; A. J. Weil and H. G. Weil, New York; D. M. Monjo and D. L. Monjo, Elizabeth, N. J.; H. D. Kyle, Short Hills, N. J.

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